

# Substance Abuse Trends in Maine

## State Epidemiological Profile 2011



Produced for Maine Department of Health and Human Services  
Office of Substance Abuse  
by Hornby Zeller Associates, Inc.  
**May 2011**  
Revised February 2012 (new 2009 MIYHS data)



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**State Epidemiological Profile 2011**

**THIS REPORT IS PRODUCED FOR  
THE MAINE OFFICE OF SUBSTANCE ABUSE  
COMMUNITY EPIDEMIOLOGY SURVEILLANCE NETWORK**

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## Executive Summary

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This report takes into account the primary objectives of the Office of Substance Abuse (OSA): to identify substance abuse patterns in defined geographical areas, establish substance abuse trends, detect emerging substances, and provide information for policy development and program planning. It also highlights all the prevention priorities identified in the OSA strategic plan: underage drinking, high-risk drinking among 18-25 year olds, misuse of prescription drugs among 18-25 year olds, and marijuana use in 12-25 year olds; as well as monitors the progress being made to address these priorities. This report includes data available through December 2010 and when possible updates the April 2010 report which included data through December 2009.

Key findings of this report include:

### Consumption of Substances

- Just under one-third of high school students in Maine reported consuming alcohol in the past month. This has been decreasing since 1995 and there was a significant drop between 2007 and 2009.
- Although the rate of reported high-risk alcohol use among high school students has decreased steadily since 1995, more than one in five students still reported engaging in high-risk use in 2009.
- Among high school students who had consumed alcohol, almost one-third reported starting before the age of 13. The proportion of students who started before they were 13 years old had increased in 2009 for the first time since 1997.
- Alcohol is the most frequently used substance among adults in Maine, with more than half of adults indicating they had consumed it within the past month. Young adults ages 18 to 25 exhibit the highest rates of use.
- Young adults over the legal drinking age had the highest rates of heavy drinking in 2009, followed by those between the ages of 30 and 34.
- Young adults also have the highest rates of binge drinking although it appears that the rates among those between the ages of 18 and 20 have decreased recently.
- The use of tobacco by high school students has generally declined since 1997. However, the most recent year of data show the first increase in more than a decade.
- Between 2001 and 2009 there have been decreases in the proportion of adults who reported smoking in the past month.
- In 2009, one in six high school students in Maine reported misusing a prescription drug at least once in their lifetime; one in ten reported doing so within the past month.
- Adult prescription drug abuse is highest among those ages 18 to 29, a finding that is consistent across various data sources.
- Marijuana is the most often used illegal drug in Maine. One in five high school students reported using it within the past month; similar rates are seen within the young adult population.

- Among students who had used marijuana, just under one-fourth started before the age of 13. The proportion starting before the age of 13 had been decreasing since 1997 but increased somewhat in 2009.
- Among high school students, the reported rates of cocaine use have remained steady since 1997. Among adults, those between the ages of 18 to 25 reported the highest rates of cocaine use in the past year.
- The current rate of inhalant use among high school students was about half the lifetime rate. Lifetime rates had been relatively stable until 2009 when they increased slightly.

### **Consequences Resulting from Substance Use and Abuse**

- One in five women reported smoking in the last trimester, and 7 percent reported drinking alcohol. Women who were 35 years old or older were most likely to drink in the last 3 months in 2008 although this appears to be declining.
- Since 2005, about 2 percent of all women who have been admitted to substance abuse treatment were pregnant; of those, admissions primarily due to synthetic opiates have increased since 2005.
- More adult arrest related to alcohol came from OUIs than from violations of liquor laws, whereas alcohol-related arrests among juveniles show the opposite pattern (that there are more arrests for liquor law violations than OUIs).
- Most drug-related offenses in 2009 were for possession rather than sale and manufacturing. Since 2000, it appears that adult arrests related to drugs have remained stable, while juvenile arrests have generally declined.
- In 2009, the overall number of motor vehicle crashes in which alcohol was involved appeared to be declining. Men accounted for about three-quarters of all alcohol-related crashes and drivers between the ages of 16 and 20 had the highest alcohol-related crash rates, followed closely by drivers between the ages of 21 and 24.
- In 2009, more than one-third of fatal motor vehicle crashes involved alcohol. Males have much higher crash fatality rates than females. Among younger populations, rates of alcohol-related motor vehicle crash fatality appear to have decreased since 2007 although the numbers are too small to determine whether this is an actual trend.
- Inpatient admissions related to substance use increased sharply for alcohol and opiates in 2008. Outpatient visits related to substance abuse also increased in 2008 and opiates were indicated as the substance of concern nearly twice as often as alcohol.
- About 3 percent (404) of all poisoning calls received by the Poison Center in 2010 were substance abuse cases. Among inpatient hospital admissions for substance poisoning, psychotropic medications are indicated most often as the substance of concern followed by opiates.
- There were 171 overdose deaths in Maine in 2009 up from 157 in 2005. Adults between the ages of 35 to 54 had the highest rate of death due to substance abuse or overdose during 2009, followed by those between the ages of 21 and 29.

- Overdose deaths associated with pharmaceuticals—including methadone, oxycodone, and benzodiazepines—are on the rise while overdose deaths associated with illicit drugs have declined.
- Ischemic cerebrovascular diseases were more prevalent among Mainers in 2009 than cardiovascular diseases and alcoholic cirrhosis. Cirrhosis and liver disease related to alcohol were more likely among men than women.
- Violent deaths are more likely among men and people between the ages of 35 to 54. The suicide rate among the 35 to 54 population appears to be increasing.

### **Factors Contributing to Substance Use and Abuse**

- Overall, about two out of three high school students think it would be easy to obtain alcohol and social access appears to be a primary way that underage youth obtain alcohol.
- Over half of high school students believed that marijuana was easy to obtain. This has been decreasing since 2004.
- The percentage of high school students who were sold, offered or given an illegal drug on school property appears to be decreasing.
- Although most high students think there is moderate to great risk of harm from drinking alcohol regularly, two out of five students in 2009 did not think regular use was risky.
- While three-fourths of high school students thought that binge drinking a few times a week posed a moderate to great risk of harm, only one in four young adults thought that binge drinking a few times a week was risky.
- Although most high school students think there is moderate to great risk of harm from smoking marijuana regularly, two out of five students in 2009 did not think regular use was risky. Among adults, those between 18 and 25 years of age were the least likely to view a great risk in smoking marijuana once per a month.
- High school students think they are more likely to be caught by their parents for drinking alcohol than by the police and few think they will be caught by police for smoking marijuana.
- Although less than half of all high school students think that alcohol use and marijuana use would be seen as “cool” by their peers, about two in five continue to think that using substances would be seen as cool.
- High school students generally believe that their parents and adults in their community think it would be wrong for them to drink alcohol or smoke marijuana. Most students in Maine report that their family has clear rules around alcohol and drug use.

### **Mental Health, Suicide and Co-occurring Disorders**

- Young adults are more likely to report experiencing serious psychological distress in the past year than older adults (one in five); they are also more likely than other age groups to experience a major depressive episode in the past year.

- About one-quarter of adults in Maine reported having ever been diagnosed with depression and about one-quarter of high school students have reported feeling sad or helpless during the past year.
- In 2009, about one in ten high school students considered or planned for suicide. This has been decreasing since 1995. The proportion reporting an actual suicide attempt in the past year is slightly lower.
- High school students who consumed alcohol in the past month were more than twice as likely to have attempted or planned suicide compared to those students who had not consumed alcohol.
- In 2010, just under half of all substance abuse treatment admissions also involved a mental health disorder. One quarter had received outpatient mental health services in the past year.

### **Treatment Admissions for Substance Abuse**

- The overall number of people seeking treatment has been declining since 2007 from 14,159 to 12,351 in 2010. Mainers continued to seek out treatment for abuse involving a wide array of substances. In 2010 there were 5,535 admissions for alcohol as the primary substance. This was followed by synthetic opioids (3,594) and marijuana (1,164).
- Alcohol continues to be the most frequent substance for which Mainers seek treatment, although the number of treatment admissions for alcohol has decreased since 2007.
- Synthetic opiates are the second most frequent substance for which treatment is sought in Maine. The number of treatment admissions related to synthetic opiates has been increasing since 2005.
- Marijuana tends to be listed as a secondary or tertiary substance for which treatment is sought.
- After increasing in 2008 and 2009, treatment admissions for heroin or morphine decreased in 2010.
- Treatment admissions for cocaine or crack have been decreasing since 2007, as have admissions involving methadone and benzodiazepines.

# Introduction

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## Overview of Maine

The state of Maine has a population of 1,318,301 people as estimated in 2009. Maine is considered an “aging” state, with 16 percent of the population being 65 years old and over, a higher rate than the overall US population (13%). On the other hand, 20 percent of the state’s population is under the age of 18 years old, a lower rate than the United States average (24%). Ninety-five percent of Maine’s population is White, non-Hispanic, followed by 1.4 percent Hispanic, 1.2 percent who are Black, 1.0 percent who are Asian, and 0.6 percent who are American Indian. There are five Native American tribal communities in Maine, the Penobscot, the Passamaquoddy (Pleasant Point and Indian Township), the Maliseet and the Micmac whose numbers likely are underreported on the census. In Washington County, 4.5 percent of the population reports being Native American. Androscoggin and Cumberland counties are the most diverse communities, each home to communities with many ethnic backgrounds and national origins due in large part to refugee resettlement programs there.

Maine has four metropolitan areas throughout the state, numerous small towns and communities and vast areas that are virtually unpopulated. While the average number of people per square mile was 41.3 in 2000, this greatly varies by county. The most populated counties were Androscoggin with 220.8 persons per square mile and Cumberland with 317.7 per square mile, while the least densely populated counties were Piscataquis with 4.3, Aroostook with 11.1 and Somerset with 13.0 persons per square mile.

Maine is also a diverse state economically. The median household income was \$46,419 in 2009, lower than the United States median income of \$52,029. Income varies greatly by location in a similar fashion as population density. The southern coastal counties, where most of the population is located, such as Cumberland, have much higher median incomes than the northern, rural, and less densely populated counties such as Piscataquis and Washington. At \$54,053, Cumberland has a median income which is much higher than the state average and the only county where the median income is higher than the United States median income. On the other hand, Washington County has the lowest median income at \$31,856 a year. Piscataquis, the county with the lowest population density, has a median income of \$35,144, the second lowest in the state.

It is within the context of these demographic characteristics that substance abuse in Maine must be examined.

## Purpose of this Report

This report takes into account the primary objectives of the Office of Substance Abuse (OSA): to identify substance abuse patterns in defined geographical areas, establish substance abuse trends, detect emerging substances, and provide information for policy development and program planning. It also highlights all the prevention priorities identified in the OSA strategic

plan: underage drinking, high-risk drinking among 18-25 year olds, misuse of prescription drugs among 18-25 year olds, marijuana use in 12-25 year olds, and slowing the spread of methamphetamine abuse; as well as monitors the progress being made to address these priorities.

This report includes data available through December 2010 and when possible updates the April 2010 report which included data through December 2009. Older and unchanged data are included when more recent data were not available. Five major types of indicators are included: self-reported substance consumption, consequences of substance use, factors contributing to substance use, indicators about mental health and substance abuse, and treatment admissions. Previous reports are available within the [www.maineosa.org](http://www.maineosa.org) website.

## Organization of the Report

This report is used by a variety of people for many reasons. Some need a snapshot of the current status of a particular substance, while others are looking for longer-term trends. Still others may be seeking information on a particular population. Sometimes these points of view do not require new data, but rather special comparisons or presentations. To accommodate these diverse needs, the report is organized as follows:

- The **Executive Summary** provides the reader with a brief overview of the larger report. It includes statistics and findings, but does not contain graphical illustrations, long-term trends or comparative findings.
- The section **Data Sources, Indicators and Selection Criteria** describes the data sources and indicators that are included in the profile as well as the process used to decide which indicators should be included in the profile.
- The **Full Report** presents the reader with more in-depth comparative and trend analyses for indicators that are critical to substance abuse and is broken into five major sections.
  - Consumption trends and patterns among some of the most abused substances in order to provide the reader a deeper understanding of those substances.
  - Consequences related to substance use, such as traffic accidents and poisonings.
  - Factors that contribute to substance use overall, such as norms and perceptions.
  - Mental Health indicators and how they relate to substance abuse.
  - Recent trends in substance abuse treatment and hospital admissions.

## Data Sources, Indicators and Selection Criteria

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This report includes data that was gathered from a number of data sources. A detailed description of each source is provided below, consisting of information about the data included in each source, the strengths and weaknesses, and retrieval or contact information. The report includes data that were available through March 2011 and updates the April 2009 CESN report.

A number of criteria were used to determine what information should be included in this report. A small SEOW workgroup applied these standards to each indicator and selected the best possible data source (or sources) to be included. Each criterion is defined below:

- **Relevance:** Each of the indicators must be directly related to substance use to be included in this report. The indirect effects of substance use reach throughout society in such areas as crime, health and education. However, this report limits indicators to those which can be directly related to substance use (e.g., hospital admissions in which substance use was recorded as a factor, rather than generating an estimate of the percentage of all hospital admissions that could be related to substance use).
- **Timeliness:** Each of the indicators includes the most updated data available from the source. The timeliest data included are from the previous six months or year, but some data as old as three years may be included, if the most recently collected data from the source are not yet available for use due to the timing of data collection and publication of this report. Some of these sources in which 2008 data is the most recent available (including the National Survey on Substance Use and Health, for which the most recent data available are from 2007-08) are also the most relevant and reliable, so their data are included.
- **Availability:** For an indicator to be included in this report, data regarding its use must be available from a reliable source. That is, a question must be asked on a representative survey or an office must record incidents, and the source must be willing to release the results either to the general population, or the SEOW and/or its members. As stated above, the most recent data available from those sources are included in this report.
- **Reliability:** In order to include trended data in this report, the data available for each indicator must be reliable and comparable from year to year. They need to reflect the same indicator in the same manner for the same population each year.
- **Trending:** Trends are included in this survey for indicators in which reliable data are available from multiple years. In some instances, trending is limited or not possible due to limited availability of the data. For example, questions regarding the use of specific substances have been included and discontinued in use surveys as those substances have become more or less of a concern. Therefore, trending is only available for their use in the years those questions were included in the survey.

As described previously, there are multiple purposes for this report. One is to provide a snapshot of the most recent data regarding substance abuse, while another is to examine

trends over time. Therefore, each indicator may have multiple sources of data that are included. While each indicator provides a unique and important perspective on drug use in Maine, none should individually be interpreted as providing a full picture of drug trends in Maine. In particular, the percentages and figures from one data source do not always align with the data and percentages from a similar source. Older data are often included in order to examine an indicator among a specific population or to find trends over time. When discussing rates of prevalence, however, the user should use rely upon the most recent data source available.

## **Description of Data Sources**

Alcohol Epidemiologic Data System (AEDS). The Alcohol Epidemiologic Data System (AEDS) is operated by CSR, Incorporated under contract to the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and acts as a centralized, national repository of alcohol-related data sets. Among other indicators, AEDS contains data on apparent per capita alcohol consumption by State, type of alcoholic beverage, for the years from 1970 through 2007. For an understanding of the methods used in calculating apparent per capita alcohol consumption, see:

LaVallee, R.A.; Williams, G.D.; and Yi, H. *Surveillance Report #87: Apparent Per Capita Alcohol Consumption: National, State, and Regional Trends, 1970–2007*. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism, Division of Epidemiology and Prevention Research (September 2009).

Nephew, T.M., Yi, H., Williams, G.D., Stinson, F.S., and Dufour, M.C. *U.S. Alcohol Epidemiologic Data Reference Manual, Vol. 1, 4th ed. U.S. Apparent Consumption of Alcoholic Beverages Based on State Sales, Taxation, or Receipt Data*. Washington, DC: NIAAA. NIH Publication No. 04-5563 (June 2004).

Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a national survey administered on an ongoing basis by the National Centers for Disease Control and Prevention (CDC) to adults in all 50 states and several districts and territories. The instrument collects data on adult risk behaviors, including alcohol abuse. BRFSS defines heavy drinking as adult men having more than two drinks per day and adult women having more than one drink per day, and binge drinking as males having five or more drinks on one occasion and females having four or more drinks on one occasion. The most recent data available are from 2009. Older data are also included for trending analyses. Both state and national data are available.

Retrieval: <http://www.cdc.gov/brfss>

Fatality Analysis Reporting System (FARS). FARS was created by the National Highway Traffic Safety Administration (NHTSA) and contains data on all fatal traffic crashes within the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a traffic way customarily open to the public and result in the death of a person (occupant of a vehicle or a non-occupant) within 30 days of the crash. FARS has been operational since 1975 and has collected information on over 989,451 motor vehicle fatalities



and collects information on over 100 different coded data elements that characterize the crash, the vehicle, and the people involved.

Retrieval: <http://www-fars.nhtsa.dot.gov/Main/index.aspx>

Higher Education Alcohol Prevention Partnership (HEAPP). Maine's Higher Education Alcohol Prevention Partnership (HEAPP) is a partnership between Maine's colleges and universities and the Maine Office of Substance Abuse to bring about long-term, systemic change in how high-risk drinking and other substance abuse issues are addressed at the state and local levels. The Partnership's efforts include collaborative events, projects, resources and student surveying which benefit not only participating campuses but also Maine's higher education community and the state as a whole. The HEAPP Student Survey is an online survey that was sent to all students with an email address at participating institutions; it was first administered in 2008 and is scheduled to be administered again in 2011. This survey collects information on student substance use, risk factors and behaviors and general health indicators. Please note that data contained in this report are preliminary. Contact: Rebecca Ireland, Director; Maine's Higher Education Alcohol Prevention Partnership; [rebecca.ireland@maine.gov](mailto:rebecca.ireland@maine.gov); (207) 287-6479.

Maine Department of Public Safety (DPS), Uniform Crime Reports (UCR). UCR data include drug and alcohol arrests. Drug arrests include sale and manufacturing as well as possession of illegal substances. Liquor arrests include all liquor law violations. OUI arrests are arrests for operating a motor vehicle under the influence of a controlled substance. DPS data are now available from 2009. Arrest data may reflect differences in resources or focus of law enforcement efforts so may not be directly comparable from year to year.

Retrieval: [http://www.maine.gov/dps/cim/crime\\_in\\_maine/cim.htm](http://www.maine.gov/dps/cim/crime_in_maine/cim.htm)

Maine Health Data Organization (MHDO). MHDO data includes all inpatient admissions to all hospitals in Maine for calendar year 2008. Data categories created by the authors include alcohol, opioids, illegal drugs, and pharmaceuticals. All drug categories include intoxication, abuse, dependence, and poisoning cases related to the drug. The opioid category includes methadone, heroin, and opiates. The illegal drug category includes crack/cocaine, cannabis, and hallucinogens. The pharmaceuticals category includes all other non-opioid medications (including stimulants and depressants). Data are compiled annually and are therefore not available on a more frequent basis. Contact: Maine Health Data Organization (MHDO) – [Lisa.Parker@maine.gov](mailto:Lisa.Parker@maine.gov); (207) 287-6745.

Maine Integrated Youth Health Survey (MIYHS). The MIYHS is a statewide survey administered biennially through a collaborative partnership by the Maine Office of Substance Abuse (OSA) the Maine Center for Disease Control and Prevention and the Maine department of Education to students in grades 5 through 12. The survey collects information on student substance use, risk factors related to substance use, as well as consequences, perceptions and social risk factors related to substances, and collects information on many other health factors. MIYHS defines binge-drinking as consuming five or more drinks in a row. As of the date of this report, the most recent data available are from 2009. Due to changes in the survey administration and structure, trending data using the Maine Youth Drug and Alcohol Survey (MYDAUS) cannot be

included. Contact: Melanie Lanctot, Research Analyst, Office of Substance Abuse, [melanie.lanctot@maine.gov](mailto:melanie.lanctot@maine.gov); (207) 287-2964

Maine Office of the Chief Medical Examiner. The Maine Office of the Chief Medical Examiner maintains records of all deaths associated with drug overdose. Drug categories include methadone, cocaine, benzodiazepines, oxycodone and heroin/morphine. The death data are compiled on an annual basis and must be finalized prior to release and so are not available to track changes that may occur over shorter time frames. Contact: Dr. Marcella Sorg, Director, Rural Drug & Alcohol Research Program, Margaret Chase Smith Policy Center, University of Maine; [marcella\\_sorg@umit.maine.edu](mailto:marcella_sorg@umit.maine.edu); (207) 581-2596

National Survey on Substance Use and Health (NSDUH). The NSDUH is a national survey administered annually by the Substance Abuse and Mental Health Services Administration (SAMHSA) to youth grades 6 through 12 and adults ages 18 and up. The instrument collects information on substance use and health at the national, regional and state levels. The advantage of NSUDH is that it allows comparisons to be made across the lifespan (that is, ages 12 and up). However, NSDUH is not as current as other data sources; as of this report, data at the state level are available from 2007-2008. Older data are included for trending and comparative purposes. NSDUH defines Illicit Drugs as marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used non-medically; Binge Alcohol Use as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past 30 days; Dependence or abuse based on definitions found in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV); and Serious Mental Illness (SMI) as a diagnosable mental, behavioral, or emotional disorder that met the criteria found in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and resulted in functional impairment that substantially interfered with or limited one or more major life activities.

Retrieval: <http://www.oas.samhsa.gov/statesList.cfm>

Northern New England Poison Center (NNEPC). The Northern New England Poison Center provides services to Maine, New Hampshire, and Vermont. A poisoning case represents a single individual's contact with a potentially toxic substance. Intentional poisoning includes those related to substance abuse, suicide and misuse. Data include the number of confirmed cases where exposures are judged to be substance abuse-related (i.e., an individual's attempt to get high). NNEPC collects detailed data on specific substances involved in poisonings, including the categories of stimulants/street drugs, alcohol, opioids, asthma/cold and cough, benzodiazepines, antidepressants, and pharmaceuticals, as well as other substances. The category of stimulants/street drugs includes marijuana and other cannabis, amphetamine and amphetamine-like substances, cocaine (salt and crack), amphetamine/dextroamphetamine, caffeine tablets/capsules, ecstasy, methamphetamine, GHB, and other/unknown stimulants/street drugs. The category alcohol includes alcohol-containing products such as mouthwash. The opioid category includes Oxycodone, Hydrocodone, buprenorphine, methadone, tramadol, morphine, propoxyphene, codeine, hydromorphone, stomach opioids,

Meperidine (Demerol), heroin, Fentanyl, and other/unknown opioids. The asthma/cold and cough category includes eye, ear, nose, and throat medications. Data available from the poison center are reported on a continual daily basis and are included through December 2010. These data are only reflective of cases in which the Poison Center was contacted. Contact: Karen Simone, Director, Northern New England Poison Center; [simonk@mmc.org](mailto:simonk@mmc.org); (207) 662-7221.

Office of Data, Research and Vital Statistics (ODRVS). ODRVS is a program within the Maine CDC. The data include Maine resident deaths in which the death certificate statistical file included any mention that alcohol or drug use may have had a role. Data include unintentional, self-inflicted, assault and undetermined intent deaths. Contact: Kim Haggan, Office of Data, Research and Vital Statistics, Maine Center for Disease Control and Prevention, [kim.e.haggan@maine.gov](mailto:kim.e.haggan@maine.gov) ; (207) 287-5451

Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is an on-going, population-based surveillance system designed to identify and monitor selected maternal behaviors and experiences before, during, and after pregnancy among women who have recently given birth to a live infant. Data are collected monthly from women using a mail/telephone survey. For more information, email [Maine.Prams@maine.gov](mailto:Maine.Prams@maine.gov)  
Retrieval: <http://www.maine.gov/dhhs/bohodr/prams.htm>

Prescription Monitoring Program (PMP). PMP maintains a database of all transactions for class C-II through C-IV drugs dispensed in the state of Maine. Drug categories used in this report include narcotics, tranquilizers, stimulants, and other prescriptions. Other prescriptions includes those that not narcotics, tranquillizers or stimulants, including products such as endocrine and metabolic drugs, analgesics and anesthetics, gastrointestinal agents, and nutritional products. Prescription counts do not reflect amounts in terms of dosage or quantity of pills, but do represent the volume of active prescriptions during the time period. The counts included in this report represent the number of prescriptions filled between 2005 and 2009. Contact: PMP Coordinator, Office of Substance Abuse; (207) 287-3363.  
Retrieval: <http://www.maine.gov/dhhs/osa/data/datastats.htm>

Treatment Data System (TDS). TDS is a statewide database that includes information about clients admitted to treatment in OSA-funded facilities through December 2010. Analyses in this report are based on clients' reported primary, secondary and tertiary drug(s) of choice as well as other demographic and background information that is collected at intake. Drug categories included in this report are alcohol, marijuana, cocaine, heroin, synthetic opiates, methadone/buprenorphine and benzodiazepines. Contact: Stacey Chandler, Office Specialist I, Office of Substance Abuse, [stacey.chandler@maine.gov](mailto:stacey.chandler@maine.gov); (207) 287-6337. Retrieval: [https://portalx.bisoex.state.me.us/jav/osa\\_TDSreports/home.do](https://portalx.bisoex.state.me.us/jav/osa_TDSreports/home.do)

Youth Risk Behavior Surveillance System (YRBSS). The YRBSS is national survey administered biennially by the National Centers for Disease Control and Prevention (CDC) to students in grades 9 through 12. The survey collects information on youth risk behaviors, including substance use. The YRBSS defines binge-drinking as consuming five or more drinks of alcohol in

a row; first drink of alcohol as first drink other than a few sips; and inhalant use as sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high. The most recent YRBSS data is available for 2009, and older data is included as well for trending reports. Both state and national data are available. Due to the changes in the MIYHS described above, data from the YRBSS are included to provide trending analysis in this report.

Retrieval: <http://apps.nccd.cdc.gov/yrbss>

## Consumption of Substances

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Consuming harmful substances can have detrimental effects on an individual's well-being, including increased risks of morbidity, addiction and mortality, and has a harmful effect on society as a whole including increased motor vehicle accidents and crime. However, it is the manner and frequency with which people drink, smoke and use drugs that are often linked to particular substance-related consequences. To understand fully the magnitude of substance use consequences, it is important to first understand the prevalence of substance use consumption, itself. Consumption includes overall use of substances, acute or heavy consumption and consumption by high risk groups (e.g., youth, college students, pregnant women).

As demonstrated by the indicators below, alcohol remains the substance most often used by Mainers across the lifespan. In particular, high-risk drinking among the 18 to 25 year old population continues to be a concern although it appears that the rates of use among those who are below the legal age to drink are declining. Prescription drugs and marijuana are the two most commonly used drugs in Maine. Again, the young adult population rises to the top in terms of high rates of using these substances.

## Alcohol

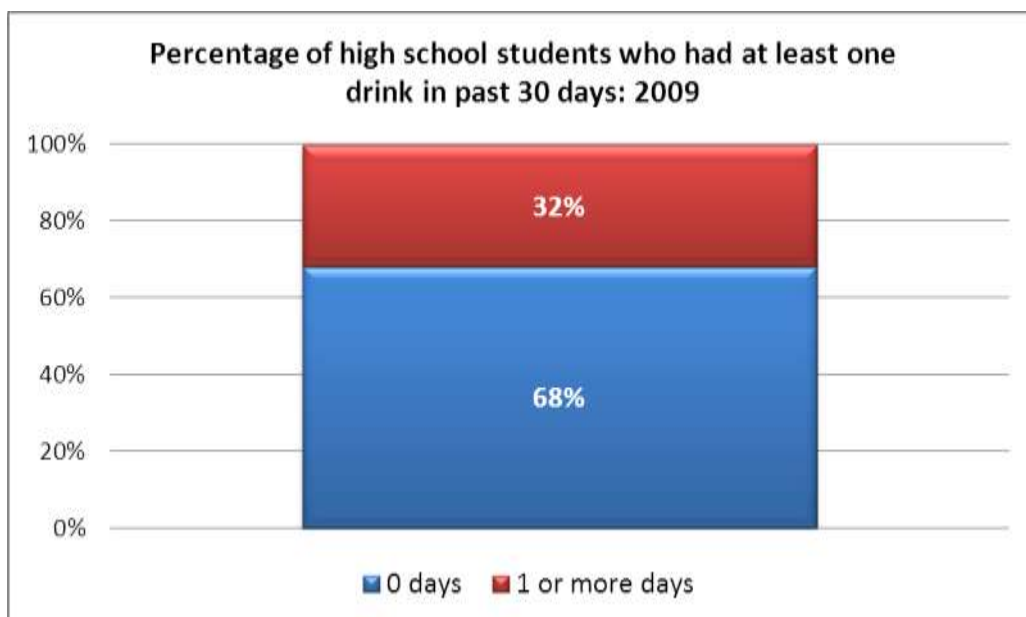
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**Indicator Description: CURRENT ALCOHOL USE AMONG YOUTH.** This measure shows the percentage of high school students who reported having had one or more alcoholic drinks on one or more days within the past month.

**Why Indicator is Important:** Alcohol is the most often used substance among youth in Maine. In addition to the risks alcohol consumption carries for adults, developing adolescent brains are especially susceptible to the health risks of alcohol consumption. Adolescents who consume alcohol are more likely to have poor grades and be at risk for experiencing social problems, depression, suicidal thoughts, assault, and violence.

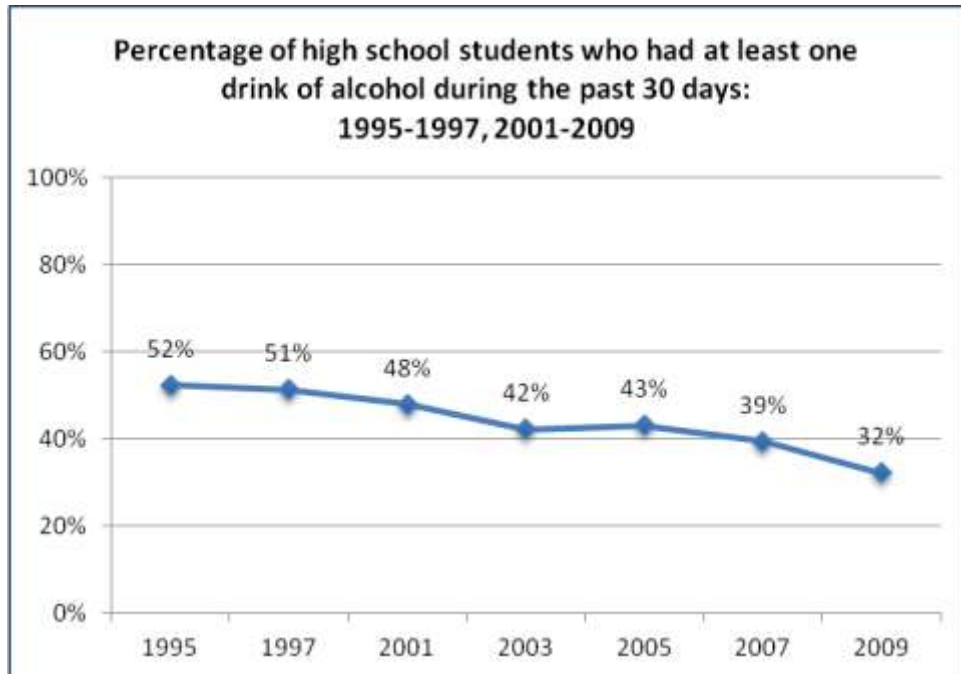
**Data Source(s):** MIYHS 2009; YRBSS, 2001–2009; NSDUH, 2002-03 to 2007-08.

**Summary:** Just under one-third of high school students in Maine report consuming alcohol in the past month. This has been decreasing since 1995 and there was a significant drop between 2007 and 2009.



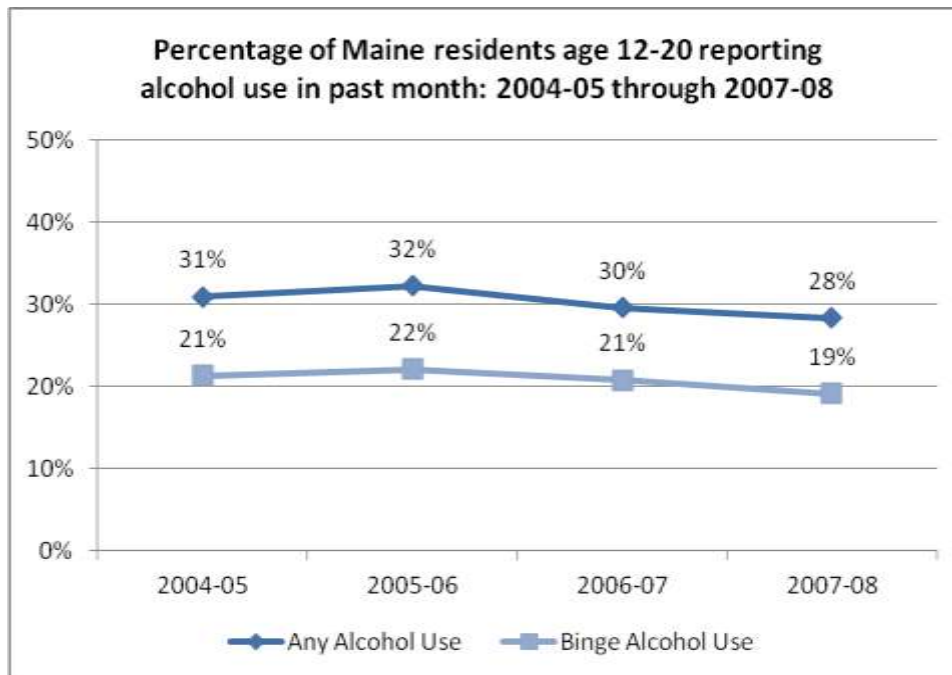
*Source: MIYHS 2009*

- According to the MIYHS, 32 percent of high school students reported having had at least one drink in the past 30 days in 2009.



*Source: YRBSS 1995-2009*

- According to the YRBSS, the percentage of students who have had at least one drink of alcohol during the past 30 days decreased dramatically from 52 percent in 1995 to 32 percent in 2009.



Source: NSDUH 2004-05 to 2007-08

- With regards to both binge alcohol use and alcohol use in general during the previous month, Maine residents under the age of 21 exhibited slight declines in past month alcohol use, from a high of 32 percent in 2005-2006 to 28 percent in 2007-2008. Past month binge alcohol use decreased from a high of 22 in 2005-2006 to 19 percent in 2007-2008 (NSDUH).

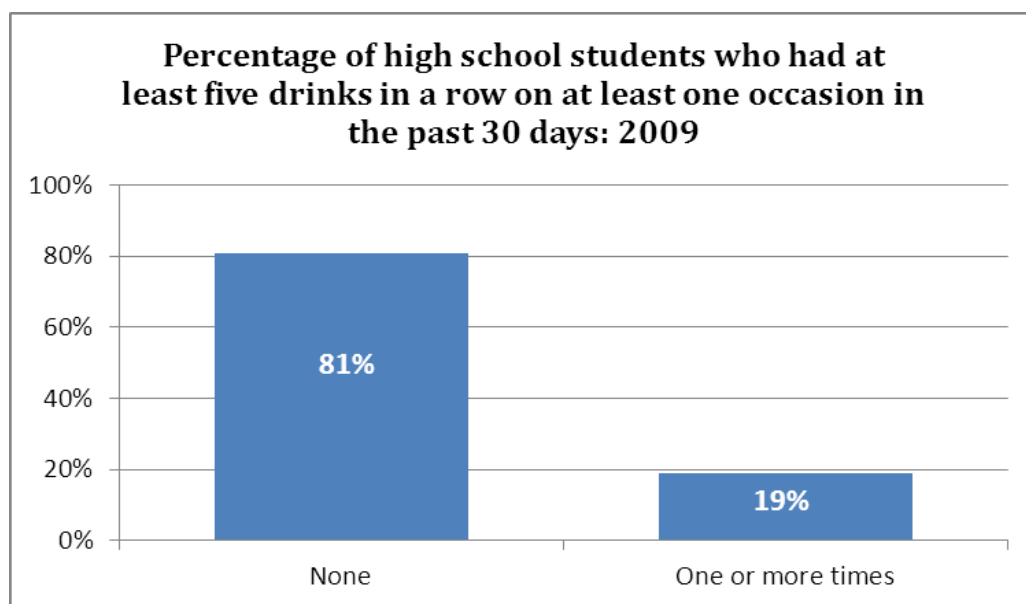


**Indicator Description: CURRENT HIGH-RISK ALCOHOL USE AMONG YOUTH.** This indicator presents the percentage of youth who reported having had five or more alcoholic drinks in a row in the past two weeks and on at least one day within the past month.

**Why Indicator is Important:** Youth are more likely than adults to binge drink when they consume alcohol. High risk alcohol use contributes to violence and motor vehicle crashes and can result in negative health consequences for the consumer, including injuries and chronic liver disease. Youth who engage in high-risk drinking also are more likely to use drugs and engage in risky and antisocial behavior.

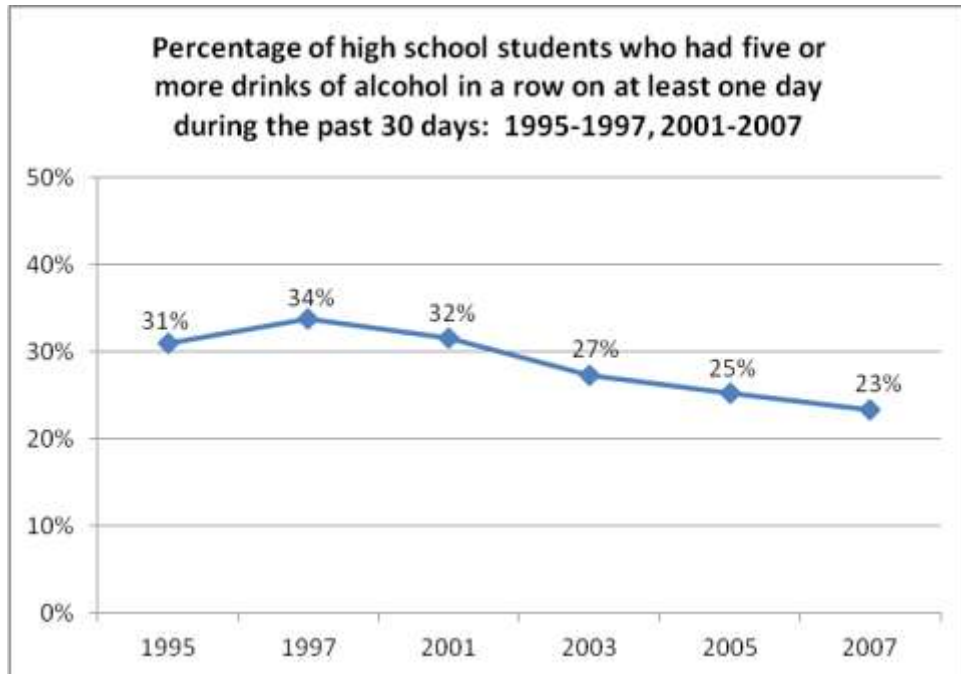
**Data Source(s):** MIYHS, 2009; YRBSS, 1995–2009.

**Summary:** Although the rate of reported high-risk alcohol use among high school students has decreased steadily since 1995, almost one in five students still reported engaging in high-risk use in 2009.



*Source: MIYHS 2009*

- In 2009, 19 percent of high school students (one in five) reported having consumed five or more drinks in a row one or more times during the past 30 days.



*Source: YRBSS 1995-2007*

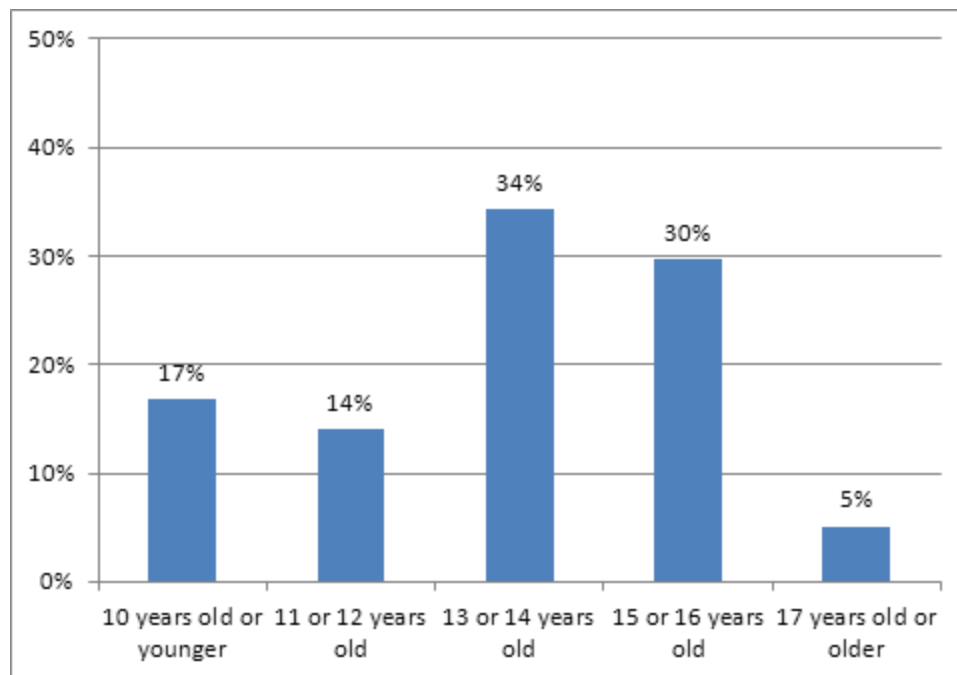
- High school students who reported having had five or more drinks of alcohol in a row at least once during the previous 30 days decreased from 34 percent in 1997 to 23 percent in 2007. Although this is the lowest reported rate among high school students since 1995, more than one in five students still reported engaging in high-risk use.

**Indicator Description: EARLY INITIATION OF ALCOHOL USE.** This measure examines the percentage of students who had more than a few sips of alcohol before age 13 and the age range in which students who drank alcohol, first did so. This analysis is limited to students who reported consuming alcohol.

**Why Indicator is Important:** The early initiation of alcohol use has been linked to more risky consumption patterns and greater risk for alcohol abuse and dependence in adolescence and adulthood.

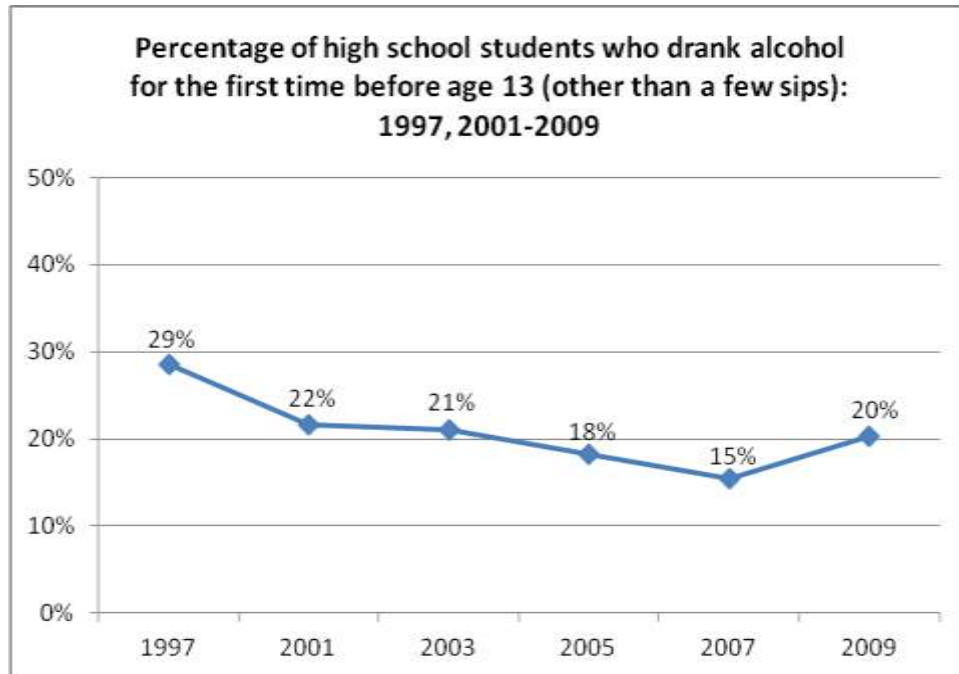
**Data Source(s):** MIYHS, 2009; YRBSS, 1995-2009

**Summary:** Among high school students who had consumed alcohol, almost one-third reported starting before the age of 13. The proportion of students who started before they were 13 years old had increased in 2009 for the first time since 1997.



*Source: MIYHS 2009*

- In 2009, 31 percent of high school students who ever consumed alcohol reported having their first drink of alcohol before the age of 13. An additional 34 percent started before the age of 15. Seventeen percent had their first drink when they were 10 years old or younger.



*Source: YRBSS 1997-2009*

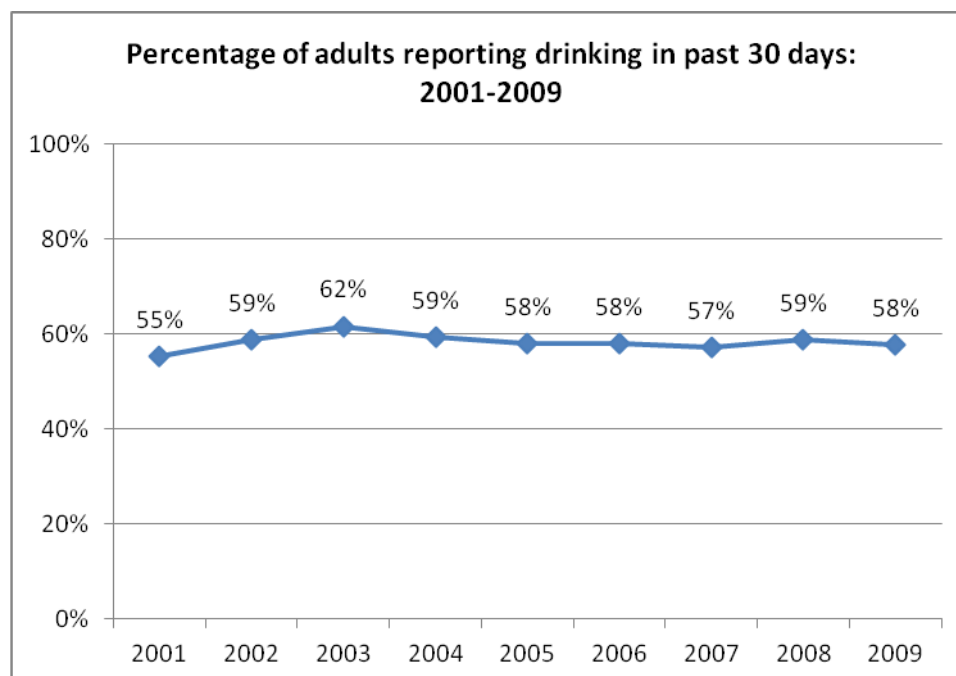
- The percentage of high school students who drank alcohol for the first time before they were 13 years old went from 29 percent in 1997 to a low of 15 percent in 2007; however the rate increased to 20 percent in 2009.

**Indicator Description: CURRENT ALCOHOL USE AMONG ADULTS.** This indicator portrays the percentage of adults who reported having consumed one or more alcoholic drinks on one or more days within the past month.<sup>1</sup>

**Why Indicator is Important:** Alcohol is the most often used substance in Maine adults. Excessive and high risk alcohol use may contribute to violence and result in many negative health consequences for the consumer. Moderate drinking can also have negative health effects and lead to such consequences as alcohol-related motor vehicle crashes and increased injuries. Current alcohol use in pregnant women is also linked to low birth weight babies, sudden infant death, and other developmental delays in children.

**Data Source(s):** BRFSS, 2001-2009; NSDUH, 2002-03 to 2007-08

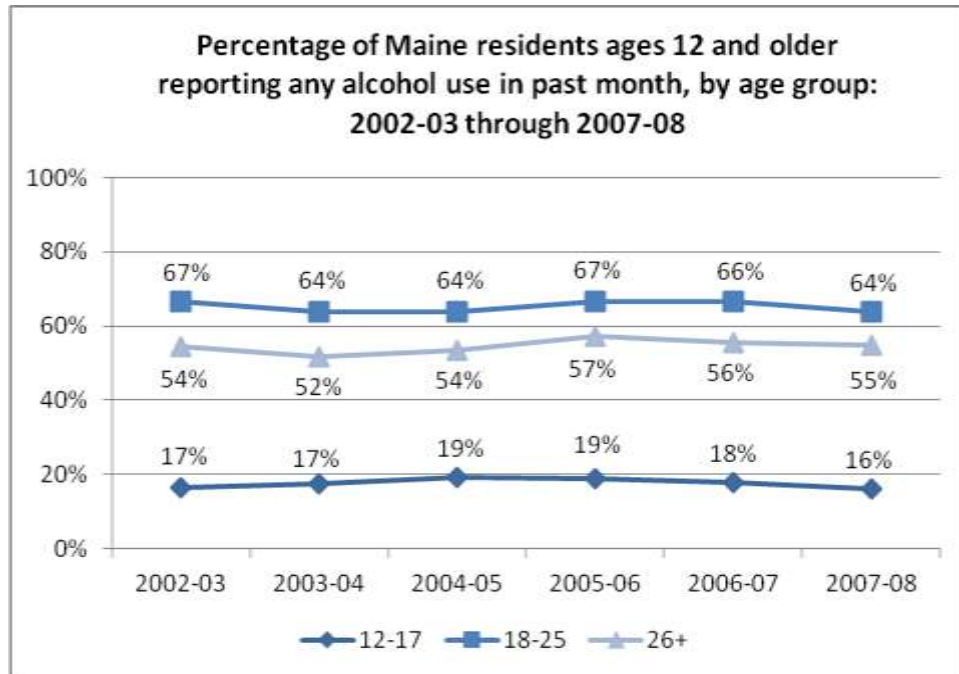
**Summary:** Alcohol is the most frequently used substance among adults in Maine, with more than half of adults indicating they had consumed it within the past month. Young adults ages 18 to 25 exhibit the highest rates of use.



*Source: BRFSS 2001-2009*

- Among Mainers over the age of 18, 58 percent reported consuming any alcohol in 2009, while 15 percent reported binge alcohol use and 6 percent reported heavy alcohol use. These proportions have remained fairly stable since 2003.

<sup>1</sup> NSDUH defines current use as use within the past month, while BRFSS, MIYHS, and YRBSS define it as use within the past 30 days.



*Source: NSDUH 2002-03 to 2007-08*

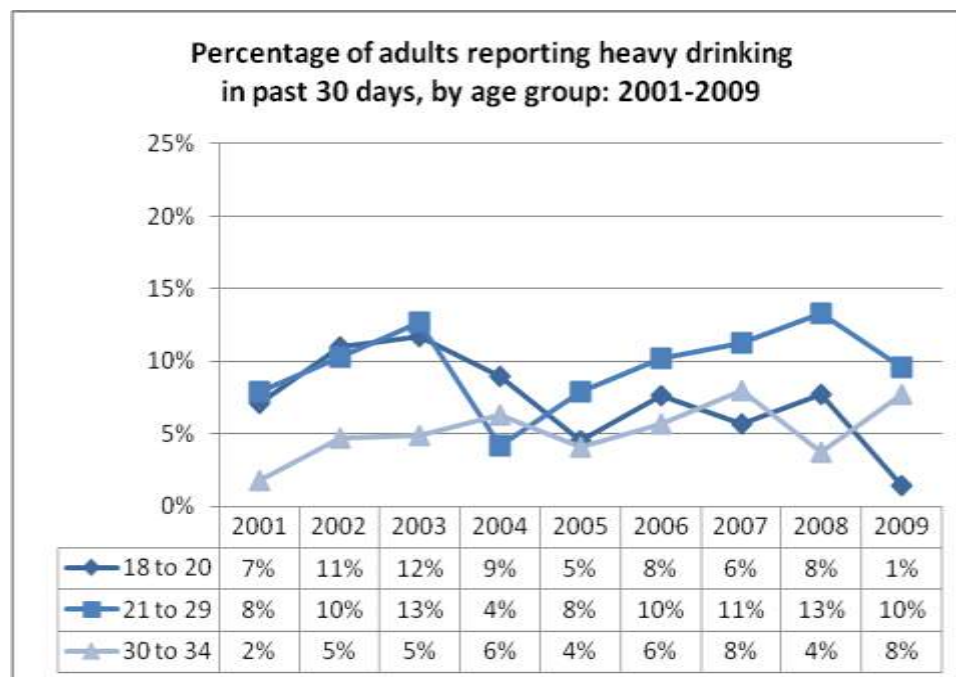
- The highest rate of past month alcohol use was among 18 to 25 year olds, at about 64 percent in 2007-08 compared to 55 percent among those 26 years old and older. This has remained consistent since 2002-03.

**Indicator Description: CURRENT HEAVY ALCOHOL USE.** This indicator examines the percentage of Maine residents who reported heavy drinking one more than one day in the month. This is defined as two drinks per day for a man or one drink per day for a woman.

**Why Indicator is Important:** Heavy drinking is considered to be a type of high risk drinking, meaning it increases the risk for many health and social related consequences. People who consume alcohol heavily are at increased risk for a variety of negative health consequences, including alcohol abuse and dependence, liver disease, certain cancers, pancreatitis, heart disease, and death. It has also been found that the more heavily a person drinks the greater the potential for problems at home, work, and with friends.<sup>2</sup>

**Data Source(s):** BRFSS, 2001-2009

**Summary:** Young adults over the legal drinking age had the highest rates of heavy drinking in 2009, followed by those between the ages of 30 and 34.



Source: BRFSS 2001-2009

- Among different age groups, the rates of heavy drinking varied between 2001 and 2009. Young adults over the legal drinking age had the highest rates of heavy drinking in 2009 at 10 percent. The rates among this age group have been unstable, however.
- After peaking in 2003 at 13 percent, the rates of heavy drinking among 18 to 20 year olds decreased to just 1 percent in 2009.

<sup>2</sup> Citation from Alcoholscreening.org a service of Join Together and the Boston University School of Public Health. Retrieved from <http://www.alcoholscreening.org/Learn-More.aspx?topicID=8&articleID=26> on 5/5/2011

- On the other hand, while 30 to 34 year olds generally have had lower rates of heavy drinking, the rate among this age group climbed to about 8 percent in 2009, compared to 2 percent in 2001.

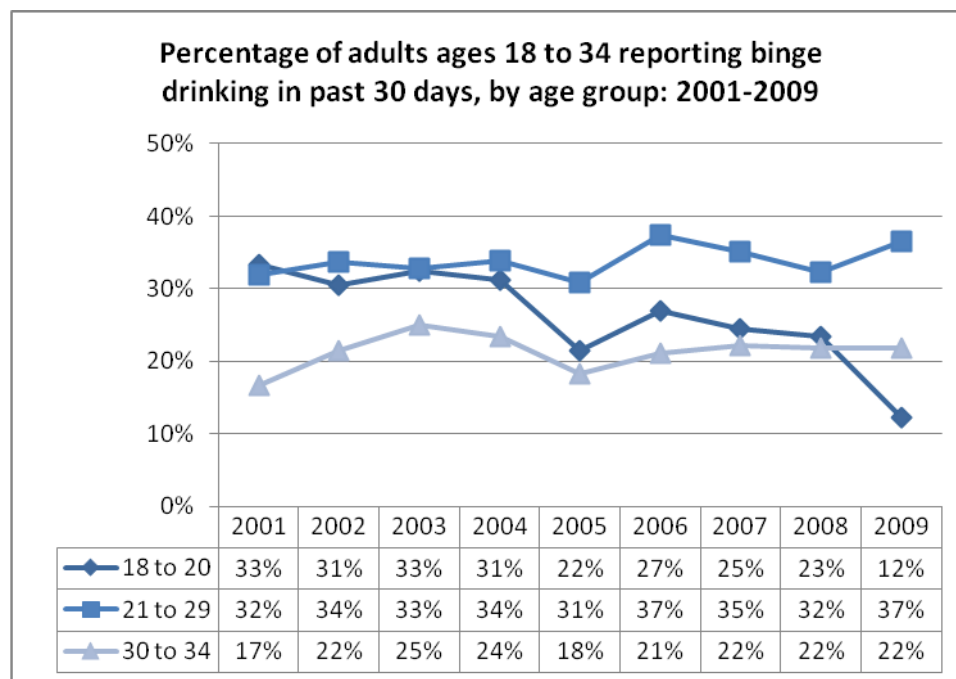


**Indicator Description: CURRENT HIGH-RISK ALCOHOL USE AMONG ADULTS.** This indicator reflects the percentage of adults who reported consuming five or more alcoholic drinks in a row on at least one day within the past month.<sup>3</sup>

**Why Indicator is Important:** Binge drinking is considered to be a type of high risk drinking, meaning it increases the risk for many health and social related consequences. High risk alcohol use has been linked to injury (such as falls, fights, and suicides), violence, crime rates, motor vehicle crashes stroke, chronic liver disease, addiction, and some types of cancer.

**Data Source(s):** NSDUH, 2002-03 to 2007-08; BRFSS, 2001-2009

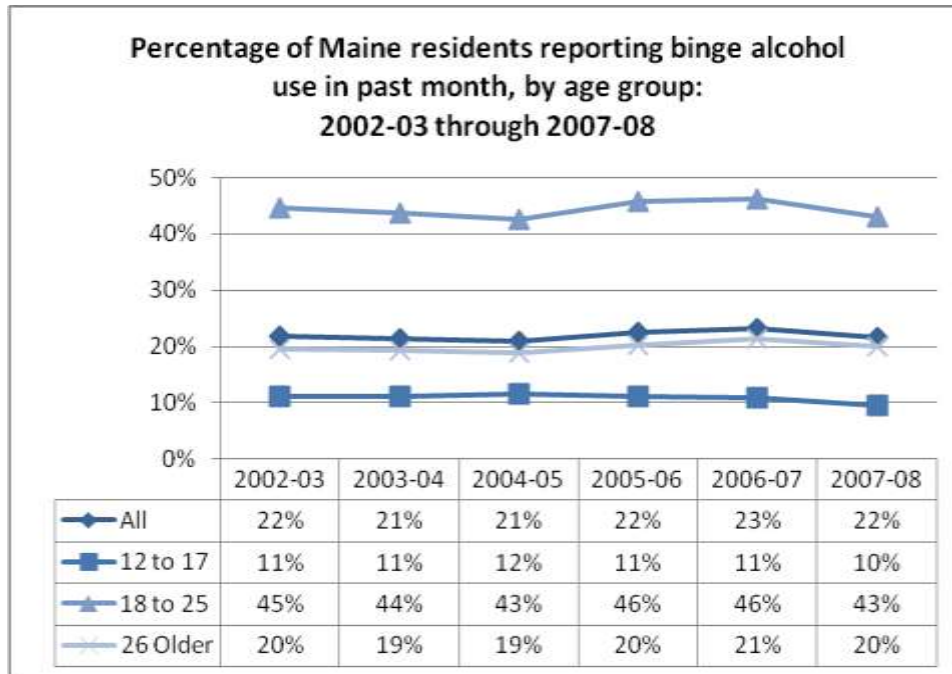
**Summary:** Young adults have the highest rates of binge drinking. It appears that the rates among those between the ages of 18 and 20 have decreased recently.



Source: BRFSS 2001-2009

- Although young adults have higher rates of binge drinking, among those who are between the ages of 18 and 20, binge drinking decreased greatly between 2008 and 2009, from 23 percent to 12 percent. However, binge drinking among those who are between 21 and 29 increased, from 32 percent in 2008 to 37 percent in 2009.

<sup>3</sup> BRFSS defines binge drinking as five or more drinks in one sitting for a male and four or more drinks in one sitting for a female.



Source: NSDUH 2002-03 to 2007-08.

- Young adults ages 18 to 25 reported the highest rates of binge drinking during the past month at about 43 percent in 2007-08, and this has remained fairly stable since 2002-03. Binge drinking for all age groups, ages 12 and up, remained just over 20 percent between 2002-03 and 2007-08.

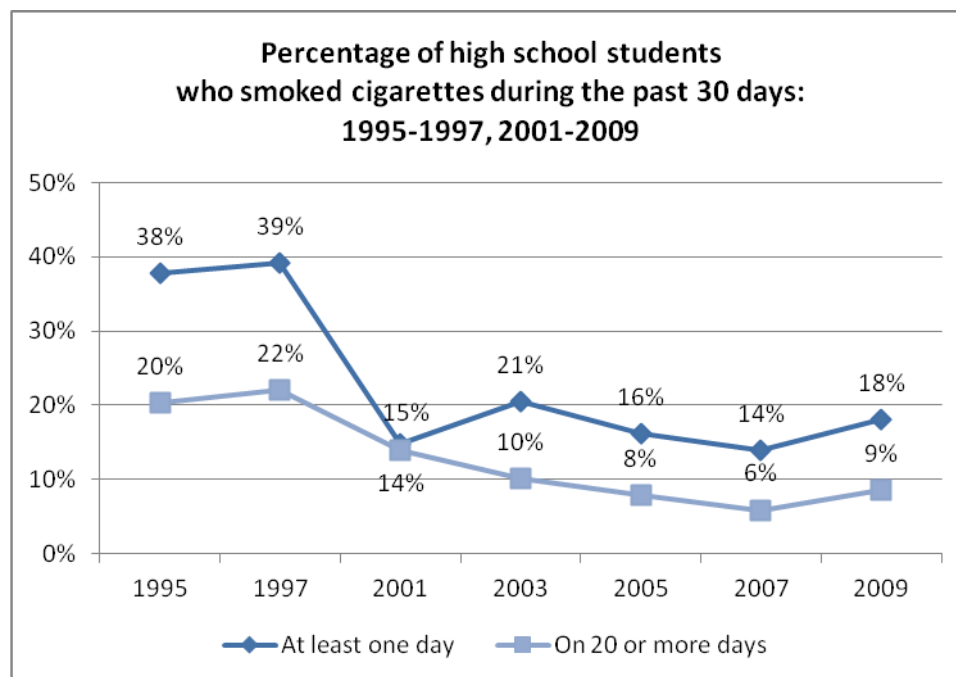
## Tobacco

**Indicator Description: CURRENT TOBACCO USE AMONG YOUTH.** This indicator illustrates the percentage of youth who reported using of cigarettes, cigars, and smokeless tobacco on at least one occasion in the past month.

**Why Indicator is Important:** Use of tobacco is associated with greater risk of negative health outcomes, including cancer, cardiovascular, and chronic respiratory diseases, as well as death.

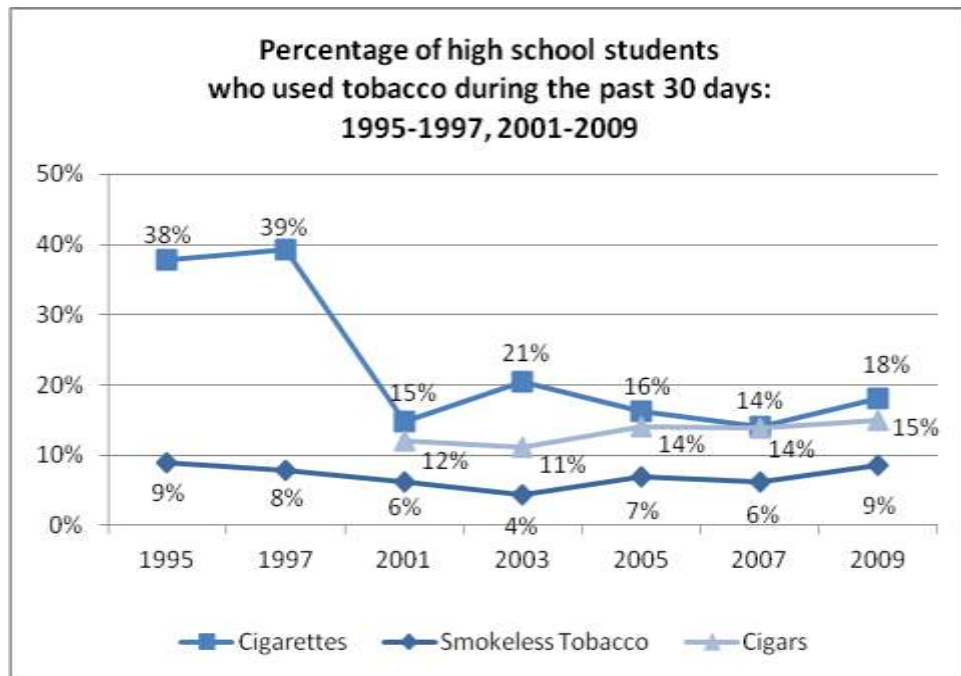
**Data Source(s):** YRBSS, 1995-2009

**Summary:** The use of tobacco by high school students has generally declined since 1997. However, the most recent year of data show the first increase in more than a decade.



*Source: YRBSS 1995-2009*

- High school students who reported having smoked cigarettes on at least 1 day during the 30 days before the survey decreased by half from 1995 to 2001 (38% down to 15%) and remained relatively consistent until 2009 where it rose slightly to 18 percent.
- High school students who reported having smoked cigarettes on 20 or more days during the previous 30 days also decreased by half during that same time period, hitting a high of 22 percent in 1997 and a low of 6 percent in 2007 before rising slightly to 9 percent in 2009.



Source: YRBSS 1995-2009

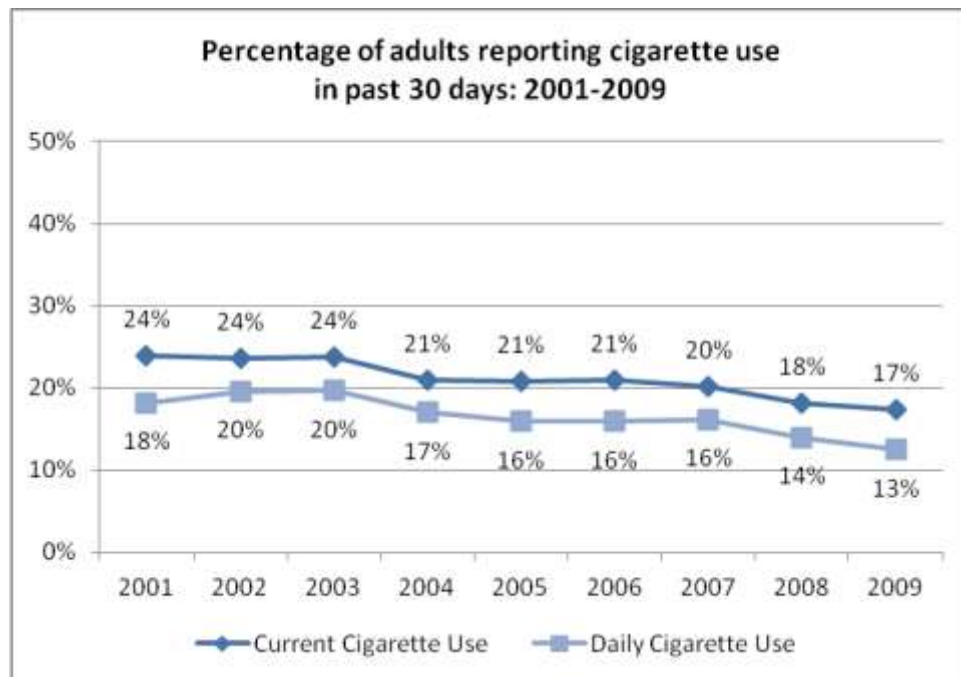
- In 2009, cigarettes continued to be the chosen form of tobacco for high school students who reported using tobacco during the previous 30 days (18%), closely followed by cigars (15%), and then smokeless tobacco (9%). Of note, the rate of smokeless tobacco use in 2009 is at the same rate as reported in 1995, while the rate of cigarette use has decreased by 20 percentage points (from 38% to 18%) over the same period.

**Indicator Description: CURRENT CIGARETTE USE AMONG ADULTS.** This measure depicts the percentage of adults who reported smoking cigarettes on at least one occasion in the past month.

**Why Indicator is Important:** Tobacco use has been linked to several negative health outcomes, including cancer, cardiovascular, and chronic respiratory diseases, as well as death. Second hand smoke is also associated with many negative health outcomes, such as increased colds, flu, asthma, bronchitis, lung cancer, low birth weight babies.

**Data Source(s):** BRFSS, 2001-2009

**Summary:** Between 2001 and 2009 there have been decreases in the proportion of adults who reported having smoked at all within the past month and having smoked daily in the past month.



Source: BRFSS 2001-2009

- In 2009, 13 percent of Maine adults reported daily cigarette use, and 17 percent said they had smoked at least once in the past month. Both indicators show declining rates since 2002.

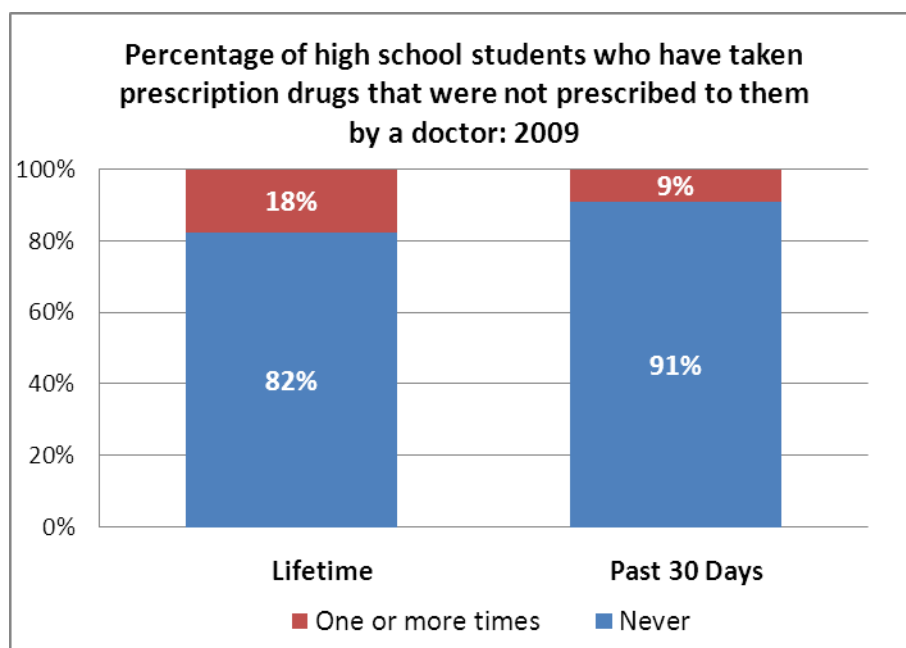
## Prescription Drugs

**Indicator Description: MISUSE OF PRESCRIPTION DRUGS AMONG YOUTH.** This indicator presents the percentage of youth who reported using prescription drugs that were not prescribed to them by a doctor. The indicator examines both current use (i.e., within the past month) and lifetime use (i.e., ever).

**Why Indicator is Important:** Young people are increasingly using available prescription drugs, including stimulants and opiates, instead of illegal drugs to get high. Abuse of prescription drugs may lead to consequences such as unintentional poisonings or overdose, automobile crashes, addiction, and increased crime.

**Data Source(s):** MIYHS, 2009.

**Summary:** In 2009, almost one in five high school students in Maine reported misusing a prescription drug at least once in their lifetime; one in ten reported doing so within the past month.



Source: MIYHS 2009

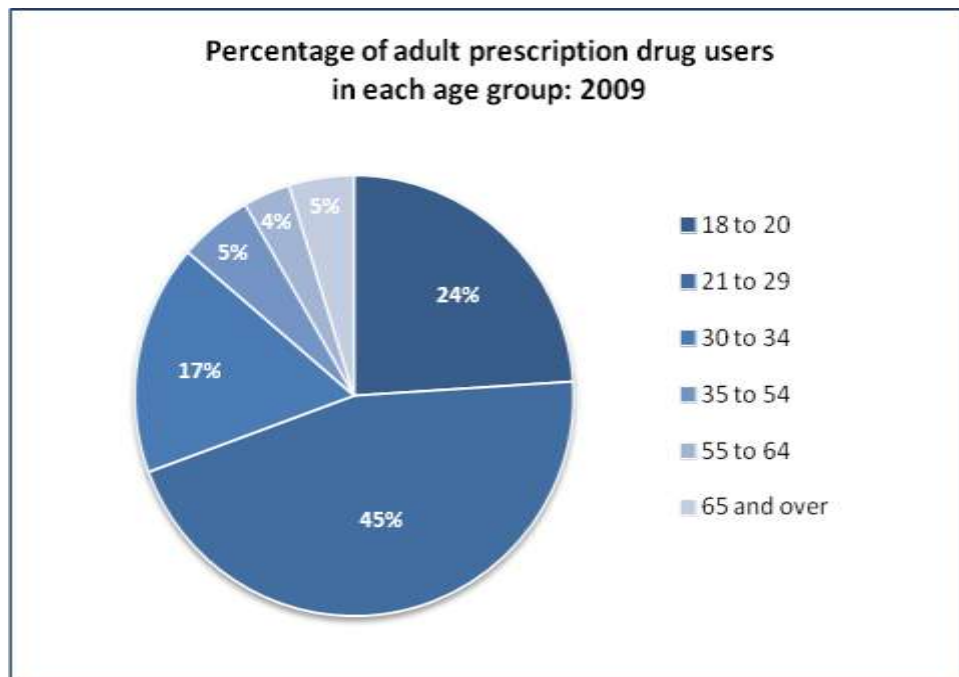
- In 2009, 18 percent of high school students reported having taken a prescription drug that had not been prescribed to them by a doctor one or more times in their lifetime. Nine percent reported having done so within the past 30 days.

**Indicator Description: CURRENT NONMEDICAL USE OF PRESCRIPTION DRUGS AND AMONG ADULTS, BY AGE.** This measure reflects the percentage of adults who reported using prescription drugs, particularly prescription pain relievers, for reasons other than their intended purpose.

**Why Indicator is Important:** Mainers are increasingly using available prescription drugs, including stimulants and opiates, instead of illegal drugs to get high. Abuse of prescription drugs may lead to consequences such as unintentional poisonings, overdose, dependence and increased crime.

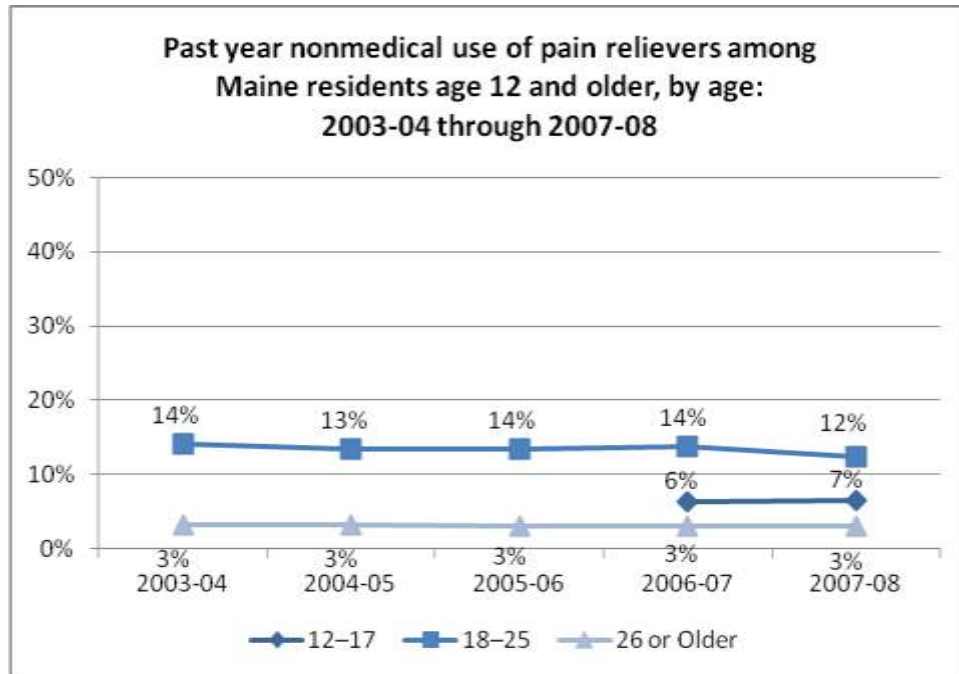
**Data Source(s):** BRFSS, 2009; NSDUH 2003-04 to 2007-08

**Summary:** Adult prescription drug abuse is highest among those ages 18 to 29, a finding that is consistent across various data sources.



Source: BRFSS 2009

- Adults ages 21 to 29 are the most represented age group when it comes to adult prescriptions drug users in 2009, making up 45 percent of all reported adults ages 18 and older. Young adults who are between the ages of 18 and 20 followed with 24 percent while 30 to 34 year olds constituted 17 percent.



*Source: NSDUH 2003-04 to 2007-08*

- The highest reported nonmedical use of pain relievers among Mainers (age 12 and older) was among 18 to 25 year olds at 12 percent in 2007-08 (down from 14% in 2003-04). Those ages 26 and older were consistent at 3 percent across all years.



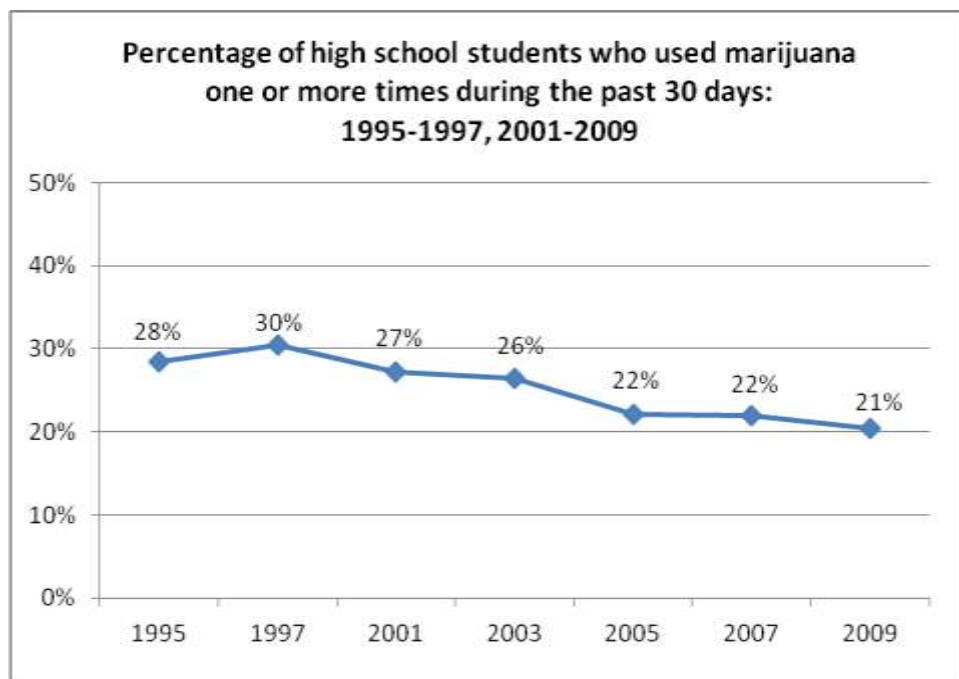
## Other Illegal Drugs

**Indicator Description: CURRENT MARIJUANA USE.** This measure shows the percentage of Maine residents who reported using marijuana in the past month. This is presented for high school students and across the lifespan (i.e, among Mainers over the age of 12).

**Why Indicator is Important:** Marijuana can be addictive and is associated with increased risk for respiratory illnesses and memory impairment. Even occasional use can have consequences on learning and memory, muscle coordination, and mental health symptoms.

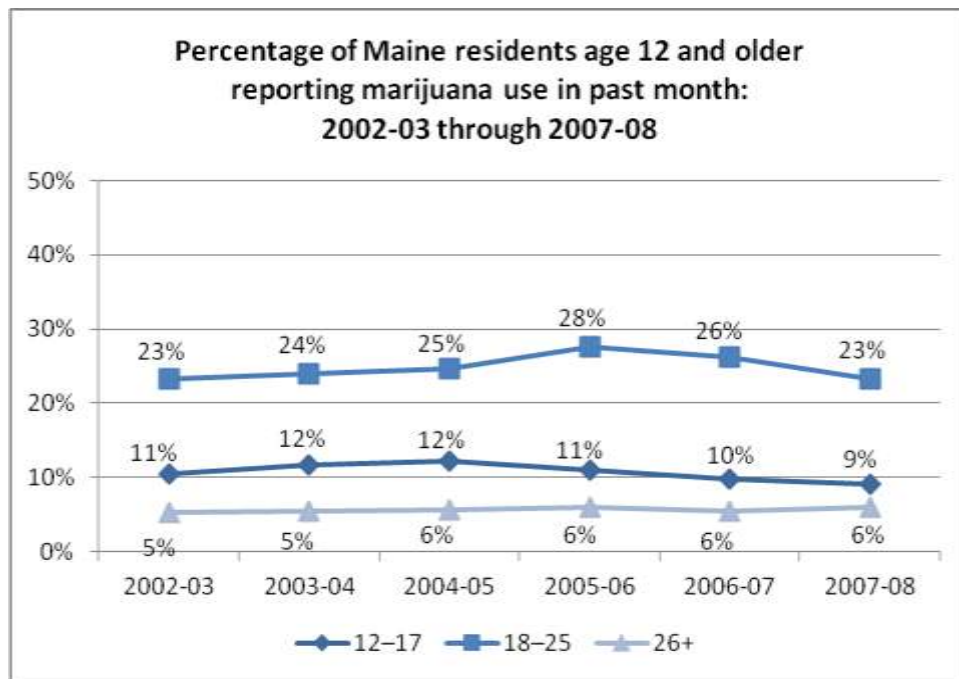
**Data Source(s):** YRBSS, 1995-2009; NSDUH, 2002-03 to 2007-08

**Summary:** Marijuana is the most often used illegal drug in Maine. One in five high school students reported using it within the past month; similar rates are seen within the young adult population.



*Source: YRBSS 1995-2009*

- The percentage of high school students who used marijuana one or more times during the previous 30 days declined between 1997 and 2009, going from reported rates of 30 percent to 21 percent.



*Source: NSDUH 2002-03 to 2007-08*

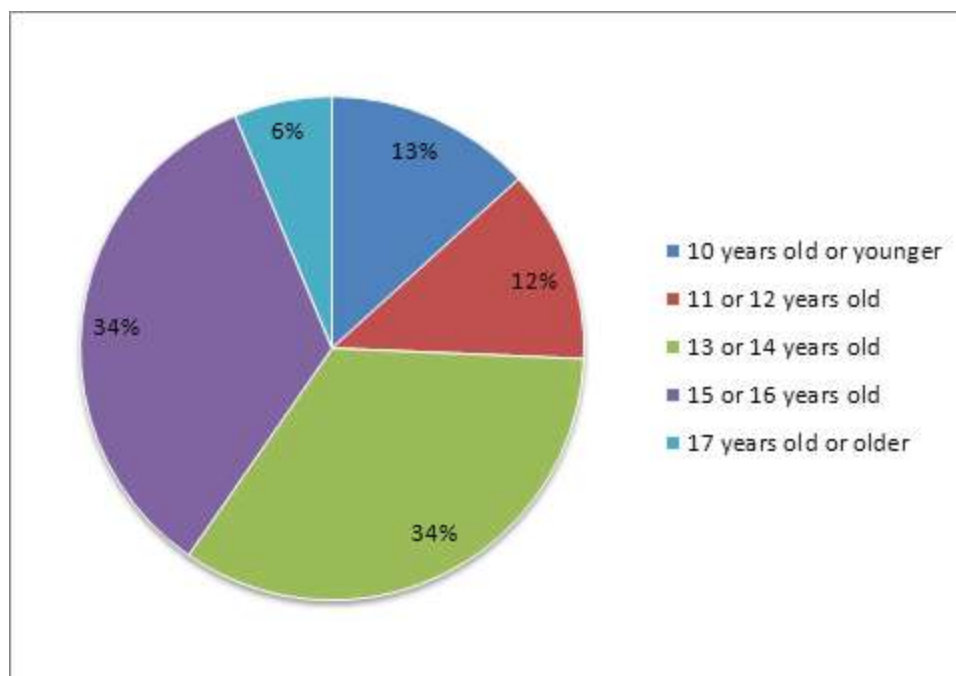
- Twenty-three percent of Maine residents between the ages of 18 and 25 used marijuana in the past month in 2007-08. Having risen from 23 percent in 2002-03 to 28 percent in 2005-06, the rate has been decreasing slightly for this age group. Marijuana use in the past month is lowest for people ages 26 and older (6%) and slightly higher for residents between the ages of 12 and 17 (9%).

**Indicator Description: EARLY INITIATION OF MARIJUANA USE.** Among those high school students who used marijuana, the percentage who used before age 13; and the age range in which students who used marijuana first used.

**Why Indicator is Important:** Youth who begin smoking marijuana at an early age are more likely to develop substance abuse and dependence in later adolescence and adulthood. Studies have confirmed that while alcohol and tobacco use typically precede marijuana use, early use of marijuana was found to increase early use of other illicit drugs.<sup>4</sup> Marijuana use prior to 12 years of age, was also found to be associated with later adolescent problems that limit skills for employment and increase the risk of contracting human immunodeficiency virus.<sup>5,6</sup>

**Data Source(s):** YRBSS, 1995–2009; MIYHS 2009

**Summary:** Among students who had used marijuana, one-quarter started before age 13. The proportion starting before the age of 13 had been decreasing since 1997 but increased somewhat in 2009.



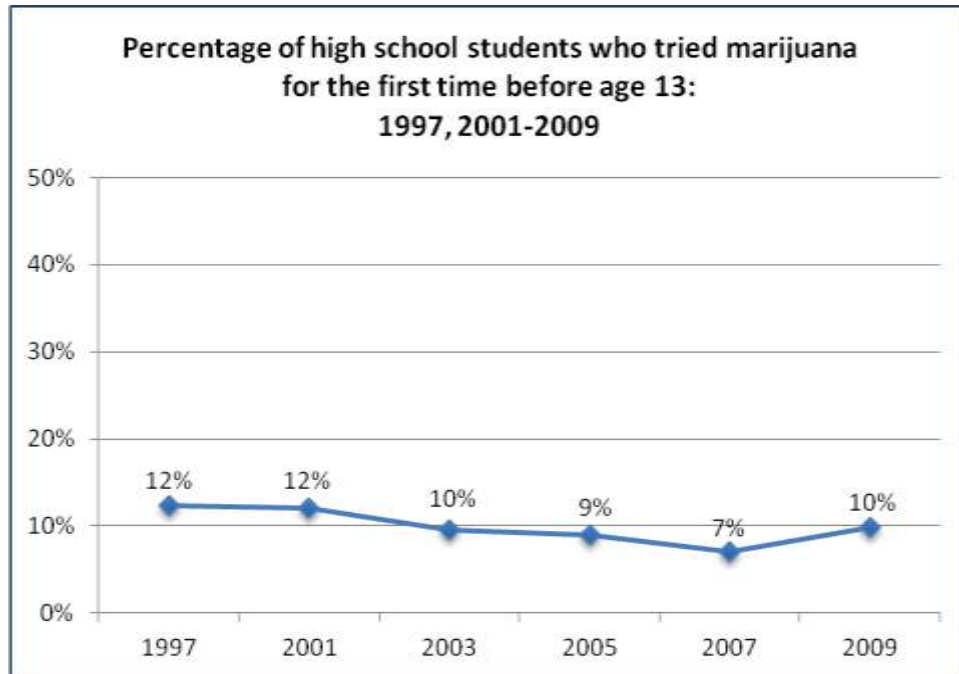
<sup>4</sup> Brook, J. S., Richter, L., Whiteman, M., & Cohen, P. (1999b). Consequences of adolescent marijuana use: Incompatibility with the assumption of adult roles. *Genetic, Social, and General Psychology Monographs*, 125, 193-207.

<sup>5</sup> Costello, E. J., Erkanli, A., Federman, E., & Angold, A. (1999). Development of psychiatric comorbidity with substance abuse in adolescents: Effects of timing and sex. *Journal of Clinical Child Psychology*, 28, 298-311.

<sup>6</sup> Kosterman, R., Hawkins, J. D., Guo, J., Catalano, R. F., & Abbott, R. D. (2000). The dynamics of alcohol and marijuana initiation: Patterns and predictors of first use in adolescence. *American Journal of Public Health*, 90, 360-366.

*Source: MIYHS 2009*

- The majority of high school students who have ever used marijuana did so when they were 13 or 14 (34%) or when they were 15 or 16 (34%). Thirteen percent had tried marijuana for the first time when they were 10 years old or younger.



*Source: YRBSS 1997-2009*

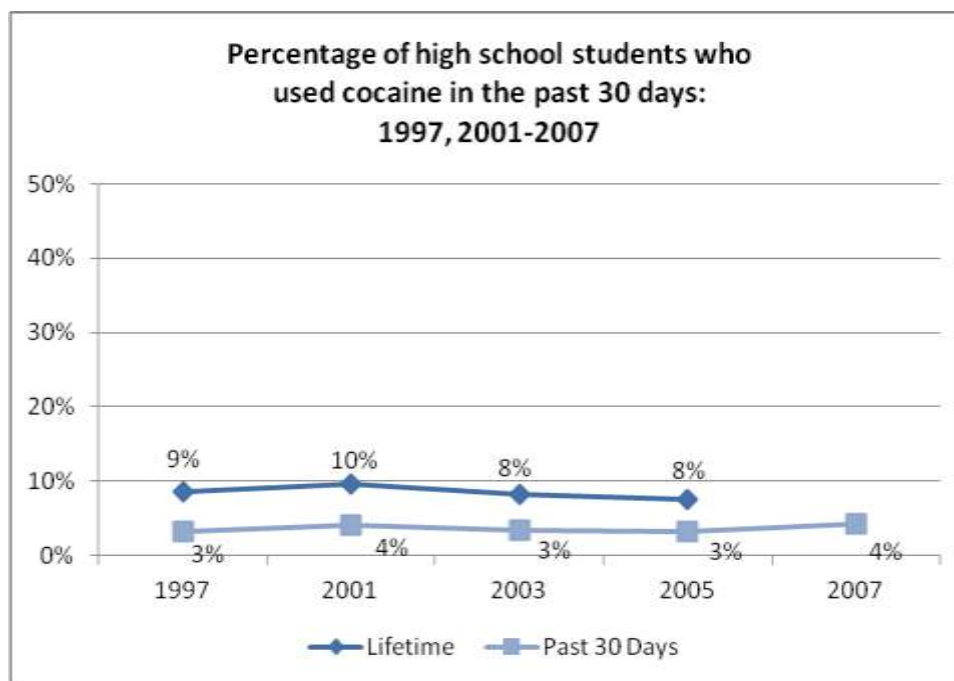
- The percent of high school students who reported trying marijuana for the first time before the age of 13 decreased between the years of 1997 and 2007 from 12 percent to 7 percent; however this rate increased somewhat in 2009 to 10 percent.

**Indicator Description: COCAINE USE.** This indicator illustrates the percentage of Maine residents who used cocaine. For youth, the measure shows rates of lifetime use (i.e., ever) as well as use during the past month. For adults, the measure reflects rates of use within the past year.

**Why Indicator is Important:** Cocaine is highly addictive. Use of cocaine is associated with adverse health effects such as cardiac events, seizures, and stroke. It also increases the risk of cognitive impairment, injury, and crime.

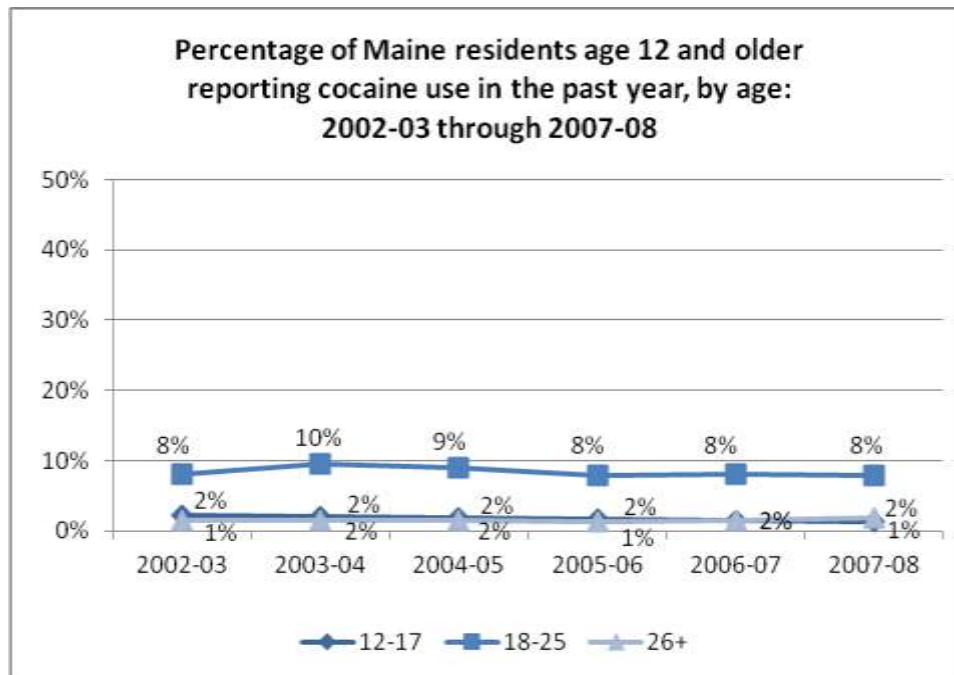
**Data Source(s):** YRBSS, 1997-2007; NSDUH, 2002-03 to 2007-08

**Summary:** Among high school students, the reported rates of cocaine use have remained steady since 1997. Among adults, those between the ages of 18 to 25 reported the highest rates of cocaine use in the past year.



*Source: YRBSS 1997-2007*

- Among high school students, the reported rates of cocaine use have remained steady since 1997. Reported lifetime use for high school students was higher at 8 percent in 2005; the rate of past month use 4 percent in 2007.



Source: NSDUH 2002-03 to 2007-08

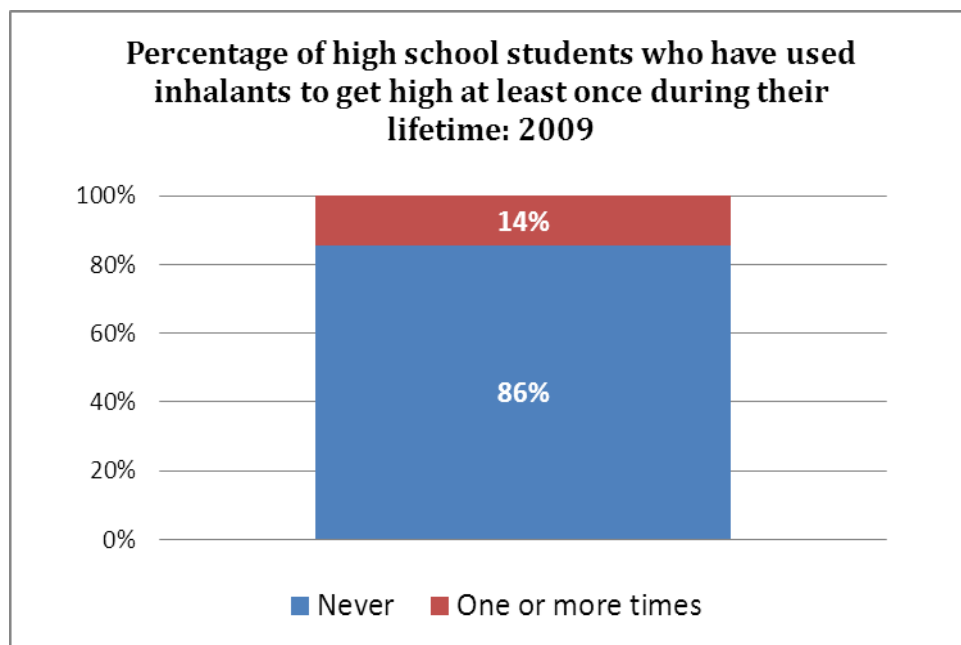
- Young adults ages 18 to 25 reported the highest rates of cocaine use in the past year at 8 percent in 2007-08, compared to just under 2 percent among both 12 to 17 year olds and adults age 26 and up.

**Indicator Description: INHALANT USE.** This indicator depicts the percentage of high school students who reported having used inhalants in their lifetime and in the past month. Inhalants include substances such as glue, aerosol spray cans, paints or sprays.

**Why Indicator is Important:** Chronic use of inhalants risks impaired brain function and damage to the nervous system and other organs. Even occasional use may cause heart attack, suffocation, or death.

**Data Source(s):** MIHYS, 2009

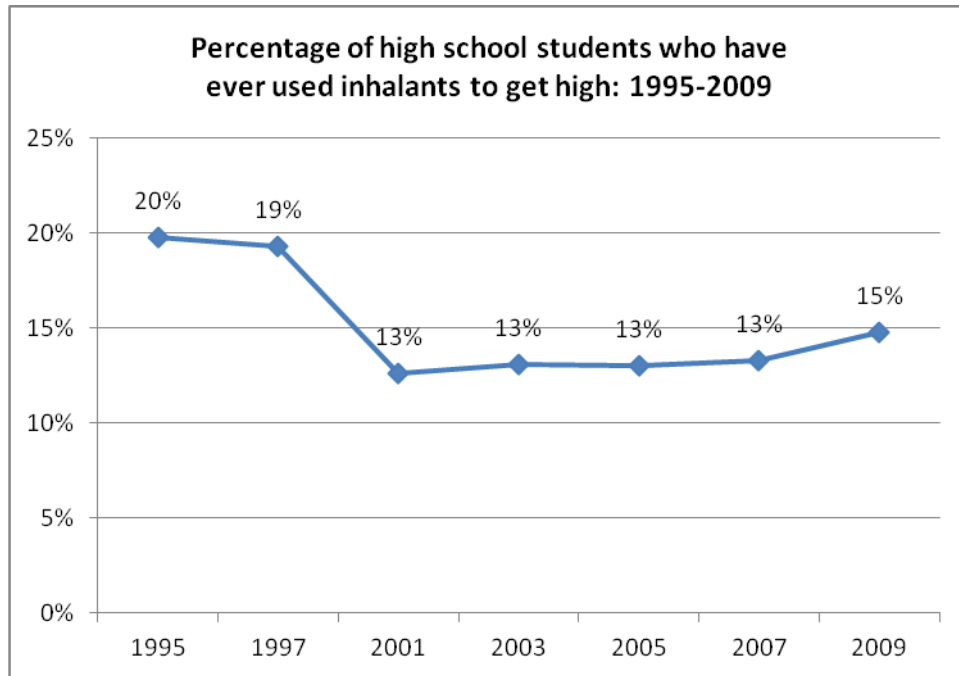
**Summary:** The current rate of inhalant use among high school students was about half the lifetime rate. Lifetime rates had been relatively stable until 2009 when they increased slightly.



*Source: MIYHS 2009*

- In 2009, 14 percent of high school students reported having used inhalants to get high at any point in their life. At 9 percent, the reported rate of using inhalants to get high within the past 30 days was about half the lifetime rate.





*Source: YRBSS 1995-2009*

- The rate of reported lifetime inhalant use among high school students decreased between 1997 and 2001, from 19 percent to 13 percent; it remained stable until 2009 when reported rates increased to 15 percent.

## **Consequences Resulting from Substance Use and Abuse**

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Both individuals and communities suffer the consequences of substance abuse in terms of increased health care needs and criminal justice resources. While a great deal of information regarding substance use can be obtained from the data described in the previous section, information on the effects of that use on individuals and communities can be derived from what has come to be called “consequence” data. Consequences are defined as the social, economic and health problems associated with the use of alcohol and illicit drugs. Examples are things such as illnesses related to alcohol, drug overdose deaths, property and personal crimes, as well as driving accidents, poisonings and suicides that involve alcohol or drugs.

Although fatal crashes involving alcohol are decreasing, alcohol was still involved in more than one-third of fatal motor vehicle crashes in 2009; the rate is particularly high among males between the ages of 21 to 24. In recent years, the number of substance abuse related hospital visits, poisoning cases and overdose deaths appear to be increasing.

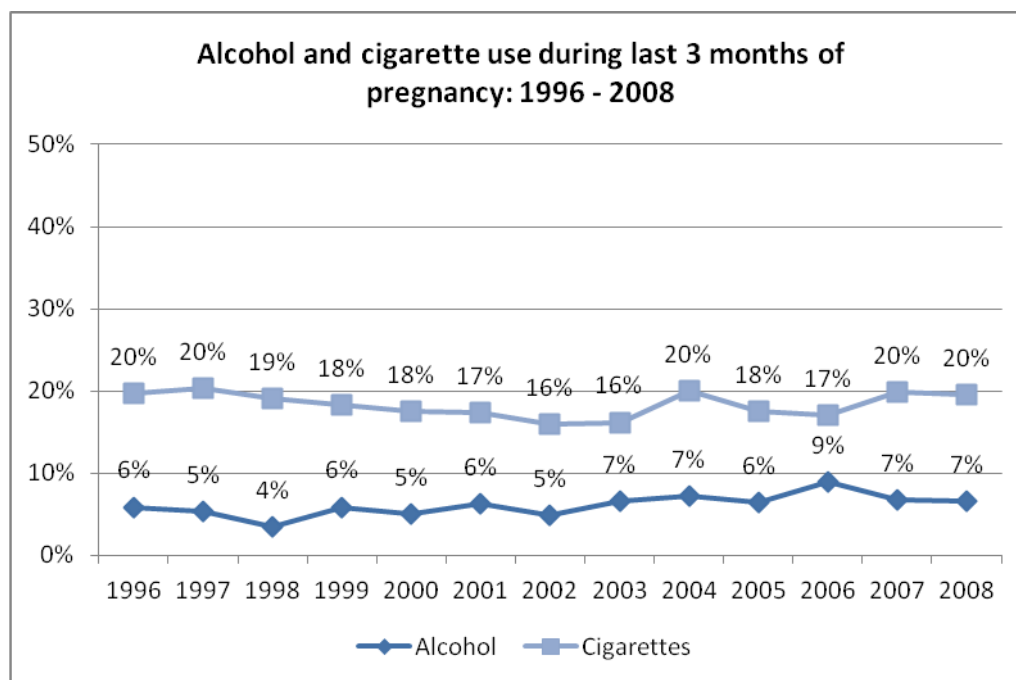
## Substance Use and Pregnancy

**Indicator Description: SUBSTANCE USE DURING THE LAST TRIMESTER.** This measure reflects the percentage of mothers who reported smoking cigarettes or drinking any alcohol during the last three months of pregnancy.

**Why Indicator is Important:** Exposure to alcohol can cause damage to the fetus during all stages of pregnancy. The minimum quantity of alcohol required to produce those damaging effects is unknown. The American Academy of Pediatrics recommends complete abstinence from alcohol for pregnant women. Babies born to mothers who smoked during pregnancy have lower birth weights than their peers whose mothers did not smoke. The Surgeon General warns against smoking during pregnancy. Any substance use during pregnancy can cause a host of short term and long term developmental delays to the fetus and child.

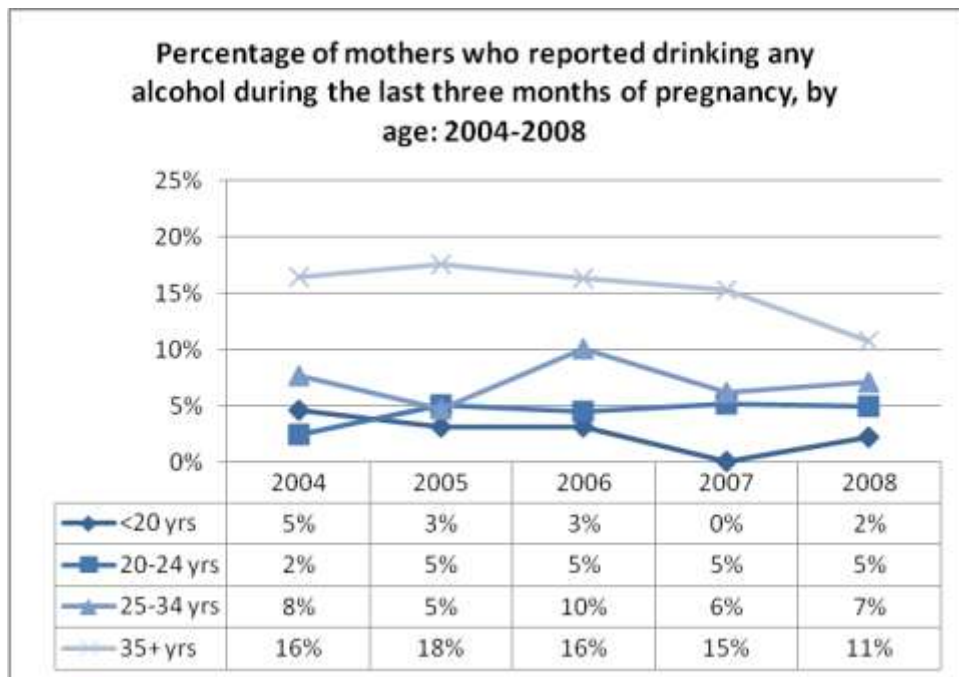
**Data Source(s):** PRAMS, 1996–2008

**Summary:** One in five women reported smoking in the last trimester, and 7 percent reported drinking alcohol. Women who were 35 years old or older were most likely to drink in the last 3 months in 2008 although this appears to be declining.



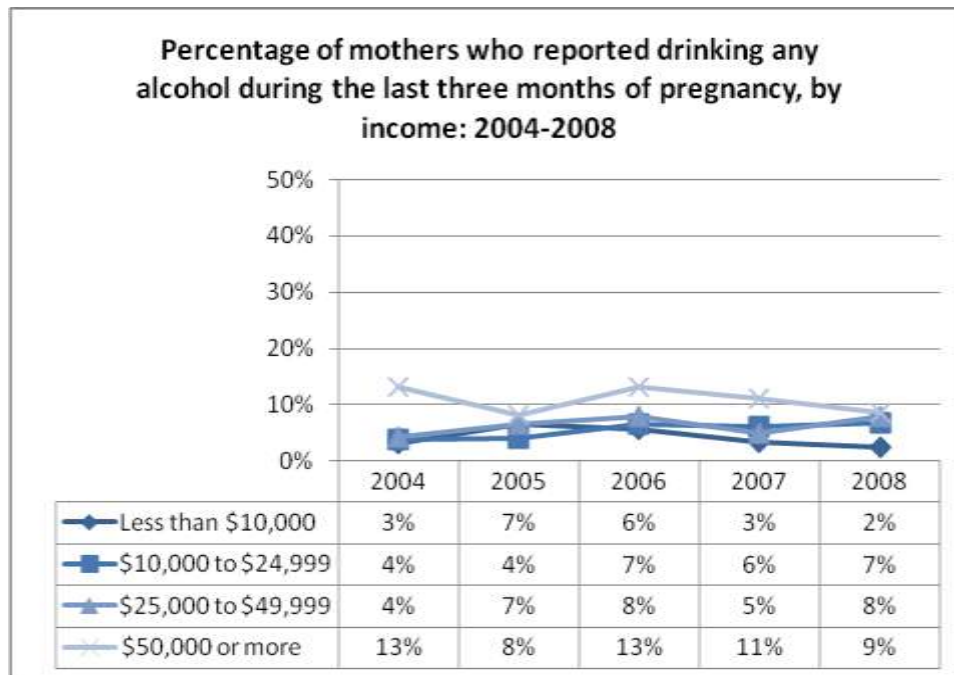
Source: PRAMS 1996-2008

- Alcohol and cigarette use during the last 3 months of pregnancy remained relatively constant between 1996 and 2008. Twenty percent of women reported smoking cigarettes during the last 3 months of pregnancy in 2008 and alcohol was reportedly used by 7 percent of women.



Source: PRAMS 2004-2008

- The highest rates of drinking alcohol during the last 3 months of pregnancy were among women who were 35 years old or older (11% in 2008) although this has been decreasing from a high of 18 percent in 2005. The lowest rates were among women who were younger than 20 years old (2%) followed by 20 to 24 year olds (5%) and 25 to 35 year olds (7%).



Source: PRAMS 2004-2008

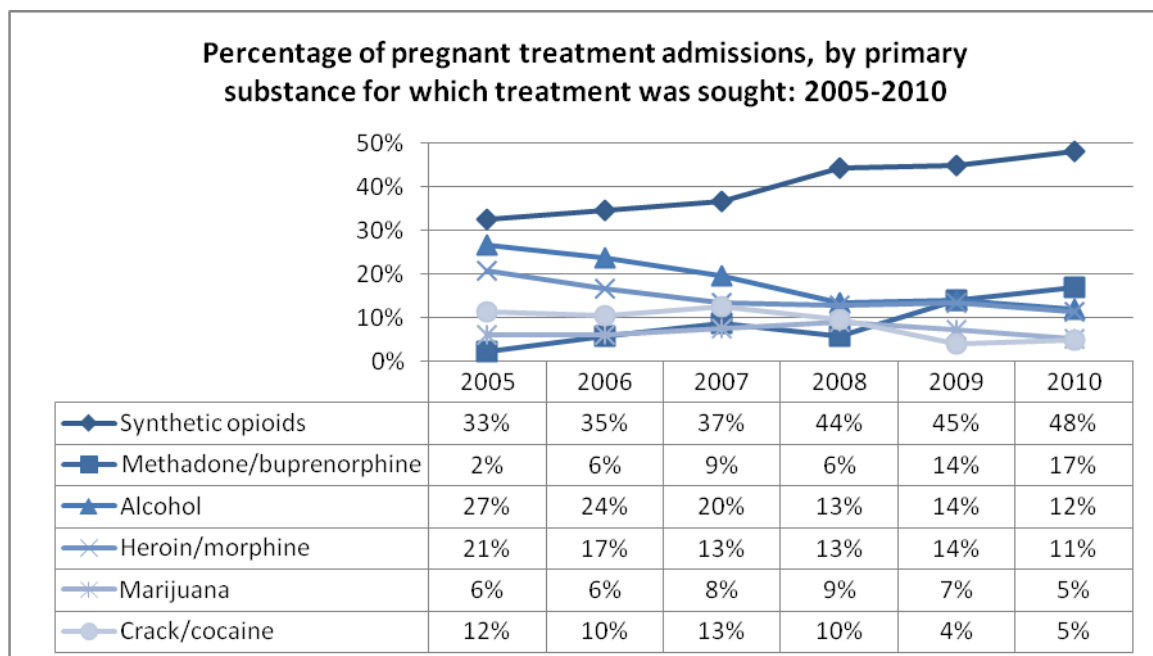
- Previously, mothers who had an income of \$50,000 or more a year reported the highest rates of drinking any alcohol during the last 3 months of pregnancy. This appears to have decreased from 13 percent in 2006 to 9 percent in 2008 and closing the observed differences in alcohol use rates among pregnant women of various income levels.
- Only two percent of mothers with an income of less than \$10,000 reported drinking during the last 3 months of pregnancy in 2008, a decrease from 7 percent in 2005.

**Indicator Description: SUBSTANCE ABUSE TREATMENT ADMISSIONS WHILE PREGNANT.** This indicator explores the primary substances for which pregnant women sought treatment.

**Why Indicator is Important:** Exposure to alcohol and drugs can cause damage to the fetus during all stages of pregnancy. The minimum quantity of alcohol required to produce those damaging effects is unknown. Babies born to mothers who used drugs during pregnancy are at greater risk of experiencing long-term behavioral difficulties and developmental delays. The American Academy of Pediatrics recommends complete abstinence from alcohol and drugs for pregnant women.

**Data Source(s):** TDS 2005-2010

**Summary:** Since 2005, about 2 percent of all women who have been admitted to substance abuse treatment were pregnant; of those, admissions primarily due to synthetic opiates have increased since 2005.



*Source: TDS 2005-2010*

- Since 2005, about 2 percent of all women who have been admitted to substance abuse treatment were pregnant; in 2010, this represented 247 women. Of those, 48 percent were seeking treatment synthetic opioids, followed by methadone/buprenorphine (17%) alcohol (12%), and heroin/morphine (11%).
- The proportion of pregnant women who were admitted for treatment primarily due to synthetic opiates has increased since 2005, from 33 percent. Over the same period, the proportion of pregnant women admitted for alcohol, heroin and crack/cocaine has decreased.

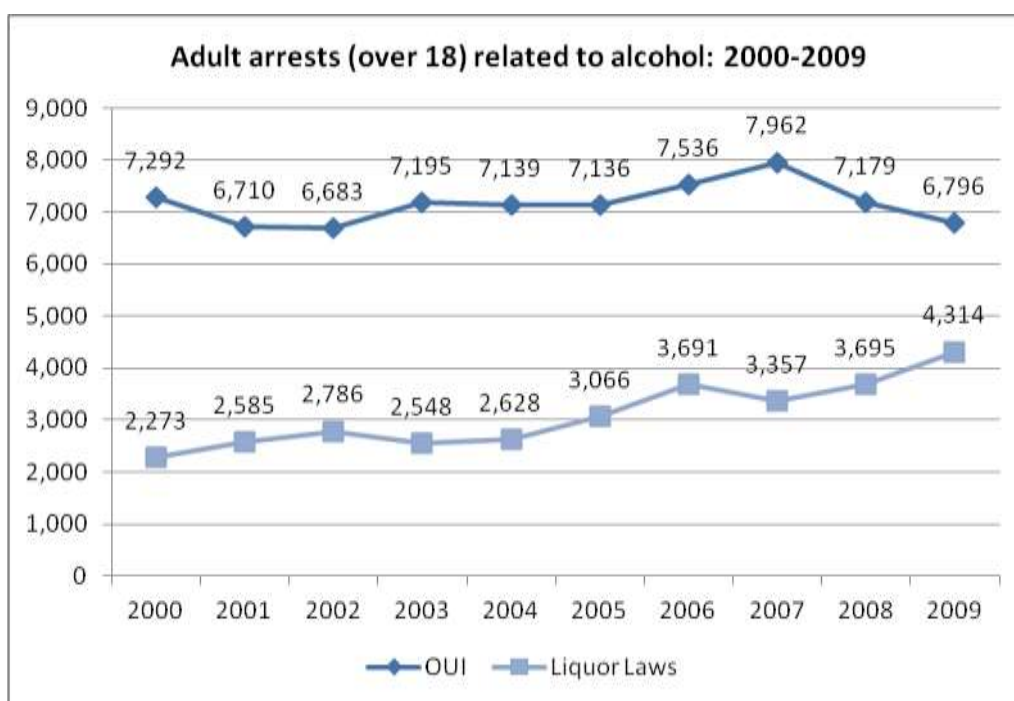
## Criminal Justice Involvement

**Indicator Description: ARRESTS RELATED TO ALCOHOL.** This indicator reflects arrests related to alcohol and includes Operating Under the Influence (OUI) and liquor law violations. The data includes those who were released without having been formally charged.

**Why Indicator is Important:** OUI and liquor law arrest rates can be an indication of the rate of criminal behavior, but it is important to note that they are also an indication of the level of law enforcement. Arrests rates are expected to increase with increased enforcement regardless of whether a decline in criminal behavior is observed. The education component of Maine's Driver Education and Evaluation Program services an average of 4,000 Maine residents annually who receive alcohol OUIs.

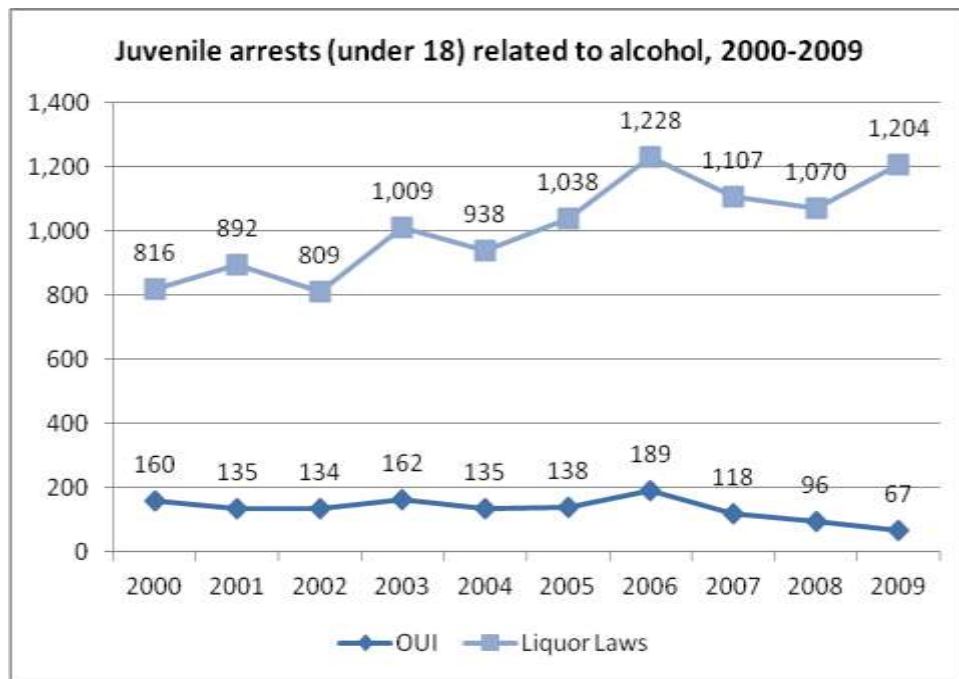
**Data Source(s):** DPS, UCR 2000-2009

**Summary:** More adult arrest related to alcohol came from OUIs than from violations of liquor laws, whereas alcohol-related arrests among juveniles show the opposite pattern (that there are more arrests for liquor law violations than OUIs).



Source: UCR 2000 – 2009

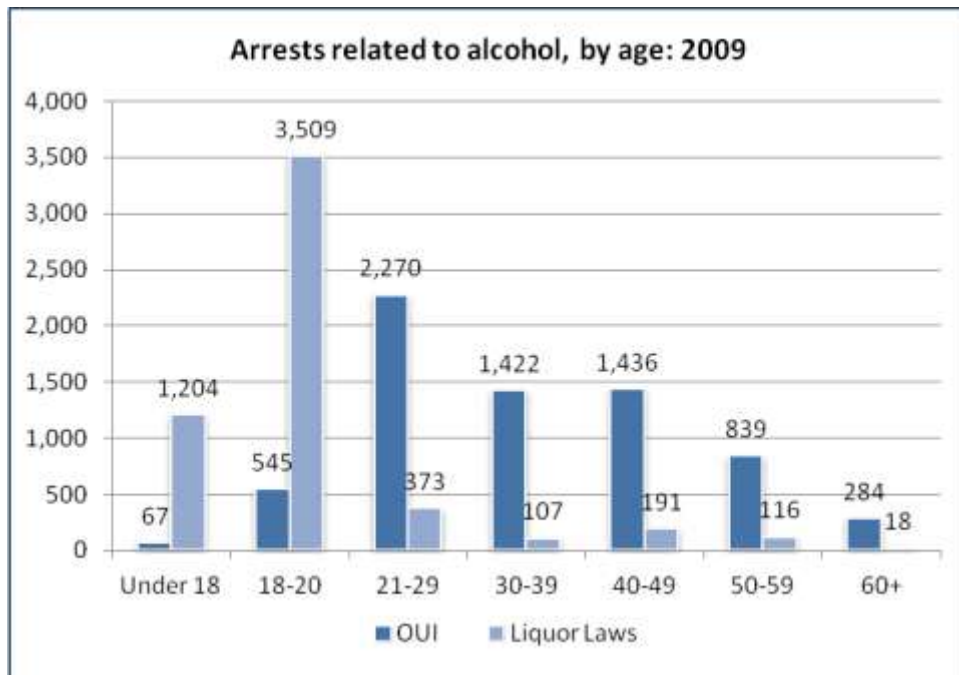
- More adult arrests related to alcohol come from OUIs than from violations of liquor laws. In 2009, there were 6,796 adult arrests for OUIs compared to 4,314 arrests for breaking liquor laws. However, liquor law violations have been increasing since 2007 while OUIs have been decreasing over the same period.



Source: UCR 2000-2009

- Alcohol related arrests among juveniles differ from adult arrests related to alcohol in that there are more arrests for liquor law violations OUIs. In 2009, there were more arrests for breaking liquor laws (1,204) than there were for OUIs (67). Arrests due to breaking liquor laws have risen since 2000, but juvenile OUIs have decreased in that same time period from 160 in 2000 to 67 in 2009.





Source: UCR 2009

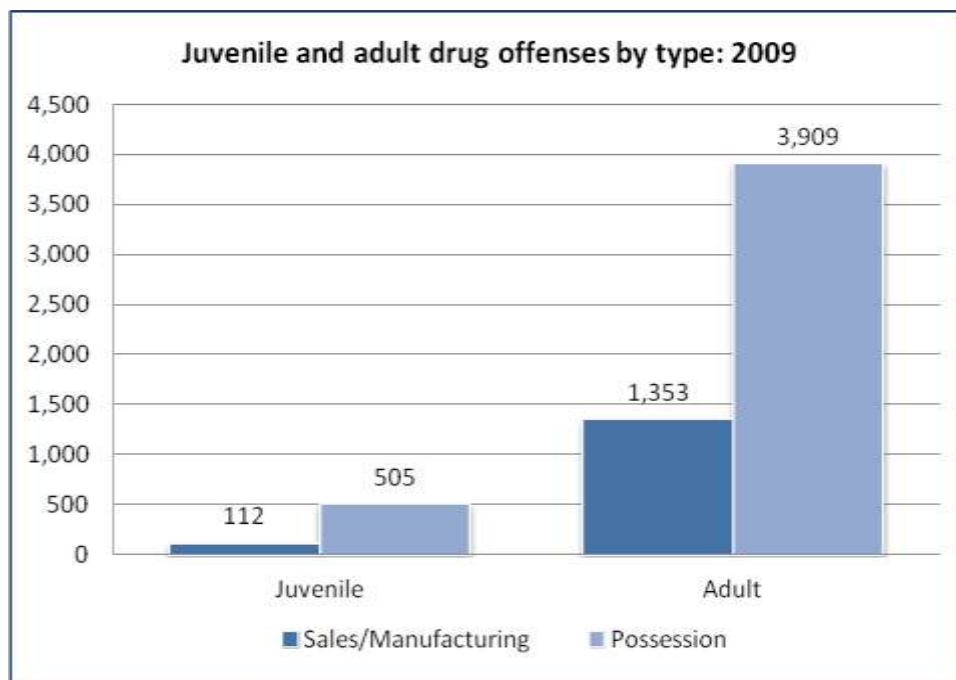
- As previously noted, it appears that the number of arrests related to OUI and liquor law violations differs among adults and juveniles. This pattern remains when comparing the number of arrests among those of legal drinking age to those who are under 21. In 2009, there were 1,204 liquor law violations for people under 18 and 3,509 for people between the ages of 18 to 20. This is compared to 373 liquor law violations for those between the ages of 21 and 29 and even fewer among older groups.
- Conversely, the opposite can be seen in OUI violations: in 2009, there were 67 arrests for those under the age of 18 and 545 for 18 to 20 year olds, compared to 2,270 OUIs for those between the ages of 21 and 29 and the number of OUIs appears to decrease across the lifespan.

**Indicator Description: ARRESTS RELATED TO DRUGS.** This indicator reflects the number of arrests that were related to drugs and includes manufacturing, sales, and possession.

**Why Indicator is Important:** Arrest rates for drug sales, manufacturing and drug possession can be an indication of the rate of criminal behavior, but it is important to note that they are also an indication of the level of law enforcement. Arrests rates are expected to increase with increased enforcement regardless of whether a decline in criminal behavior is observed.

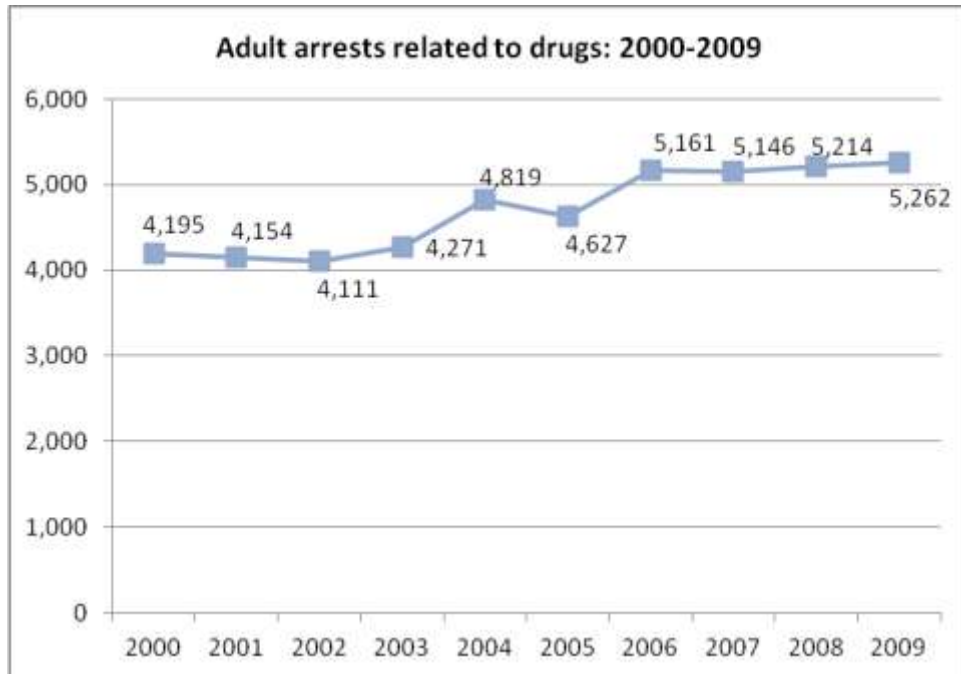
**Data Source(s):** DPS, UCR 2000–2009

**Summary:** Most drug-related offenses in 2009 were for possession rather than sale and manufacturing. Since 2000, it appears that adult arrests related to drugs have remained stable, while juvenile arrests have generally declined.



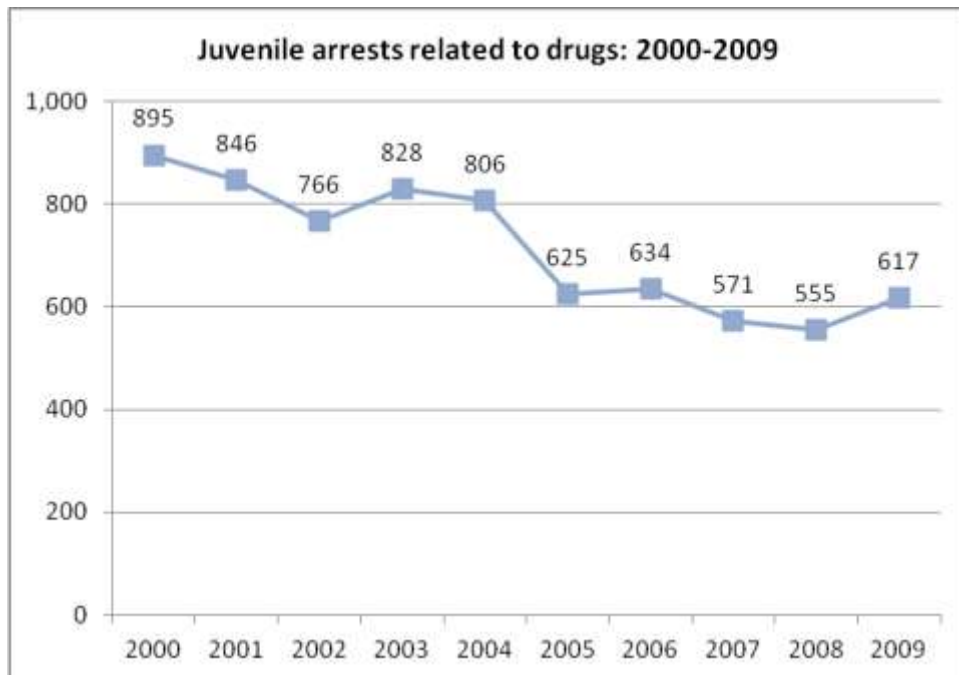
*Source: DPS, UCR 2009*

- Most drug offenses in 2009 for both juveniles and adults were for possession (505 for juveniles, 3,909 for adults) rather than sales/manufacturing (112 for juveniles and 1,353 for adults).



*Source: DPS, UCR 2000-2009*

- While adult arrests related to drugs climbed between 2000 and 2006 (4,195 in 2000 up to 5,161 in 2006), the number appears to have stabilized in recent years, climbing just slightly to 5,262 in 2009.



*Source: DPS, UCR 2000-2009*

- Juvenile arrests related to drugs have generally declined from 2000 (895 arrests) to 2008 (555 arrests); however the number of arrests rose slightly in 2009 to 617.

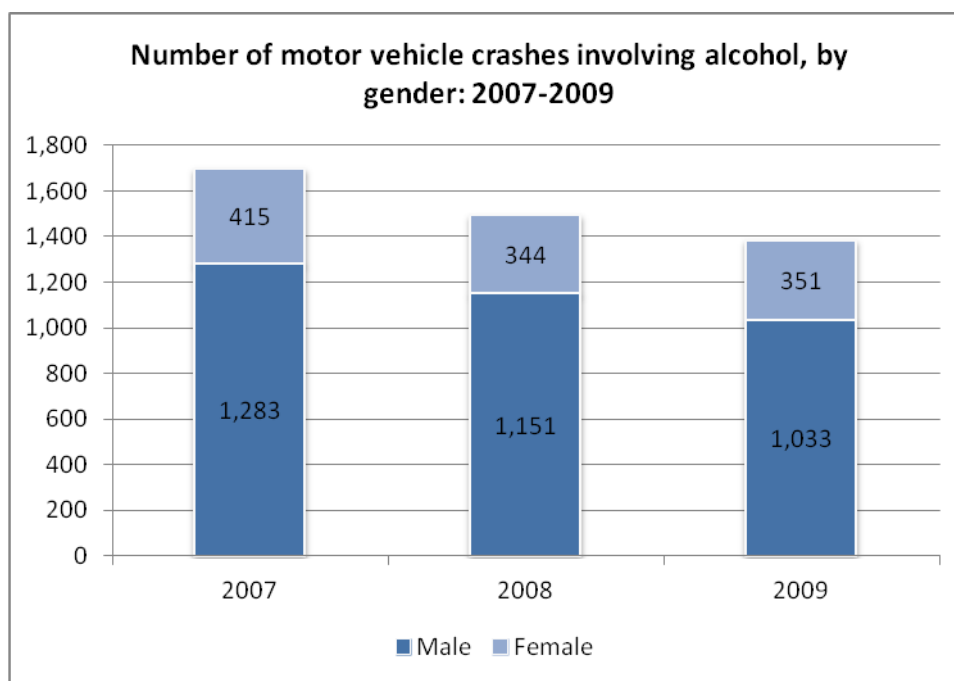
## Motor Vehicle Crashes Involving Alcohol

**Indicator Description: MOTOR VEHICLE CRASHES INVOLVING ALCOHOL.** Number of motor vehicle crashes in which alcohol was a factor, meaning at least one driver had consumed alcohol.

**Why Indicator is Important:** About 5 percent of all reported motor vehicle crashes involve alcohol. However, the resulting injuries and fatalities from alcohol-related crashes tend to be much higher. Motor Vehicle crashes are the second leading cause of traumatic brain injury, with 29% of traumatic brain injuries occurring from motor vehicle crashes.<sup>7</sup>

**Data Source(s):** MDOT, 2005-2009

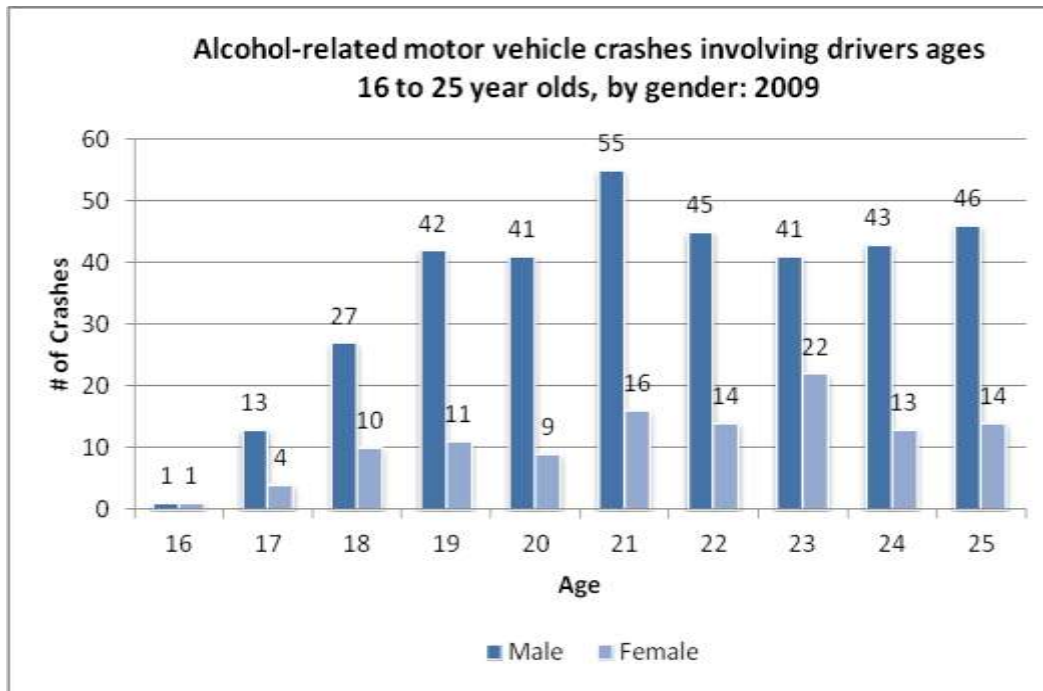
**Summary:** In 2009, the overall number of motor vehicle crashes in which alcohol was involved appeared to be declining. Men accounted for about three-quarters of all alcohol-related crashes.



*Source: MDOT 2007-2009*

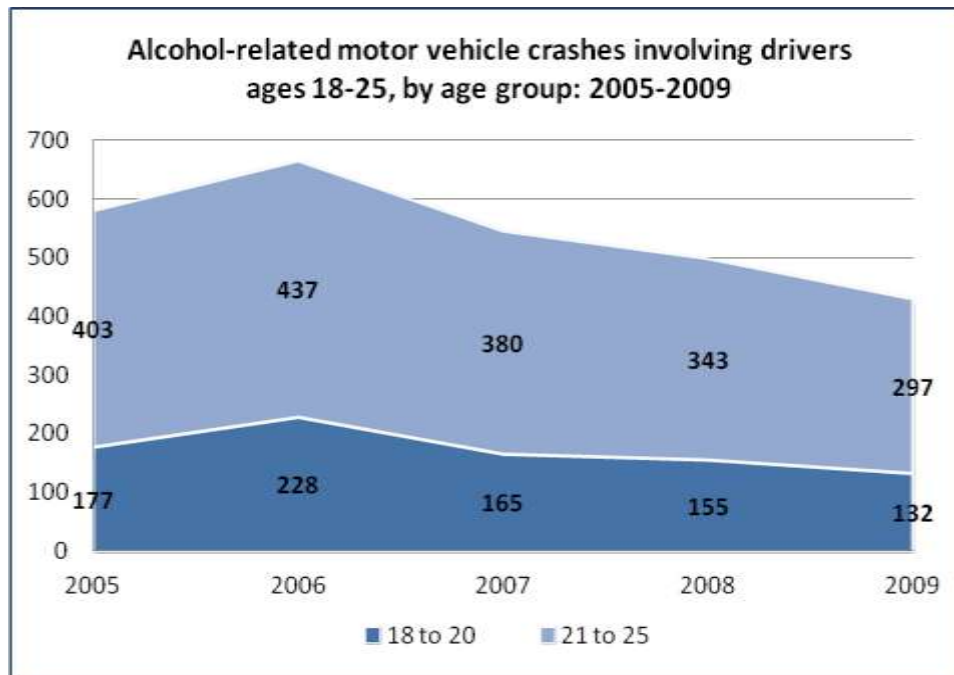
- The overall number of motor vehicle crashes in which alcohol was involved appears to be declining, from 1,696 in 2007 to 1,378 in 2009 although the total number of all crashes decreased over the same period. In all three years, males make up about three-quarters of all alcohol-related crashes.

<sup>7</sup> 2006 Maine Injury Report, Maine Center for Disease Control, Injury Prevention Program. Retrieved online 5/5/2011 from <http://www.maine.gov/dhhs/bohdcfh/inj/documents/Final08Year3Maine2006InjuryReport.pdf>



Source: MDOT 2009

- In 2009, there were a higher number of vehicle crashes among males than females across all ages. Males between the ages of 19 and 25 were in the highest number of alcohol-related crashes in 2009, which peaked among 21 year olds. Alcohol-related vehicle crashes involving females were highest among women between the ages of 21 and 23, although fewer in number compared to young men.



Source: MDOT 2005-2009

- Since 2006, there has been a decline in the number of vehicle crashes involving alcohol in which the driver was between 18 and 25 years old. Having climbed since 2000, there were 660 crashes among this age group in 2006 which dropped to 429 in 2009, a decrease of 35 percent.
- Although both groups have shown a decreased number of alcohol-related crashes since 2005, young adults between the ages of 21 and 25 consistently account for a larger proportion of alcohol-related crashes than drivers between the ages of 18 and 20, a trend which has remained stable since 2005 at around 69 percent.

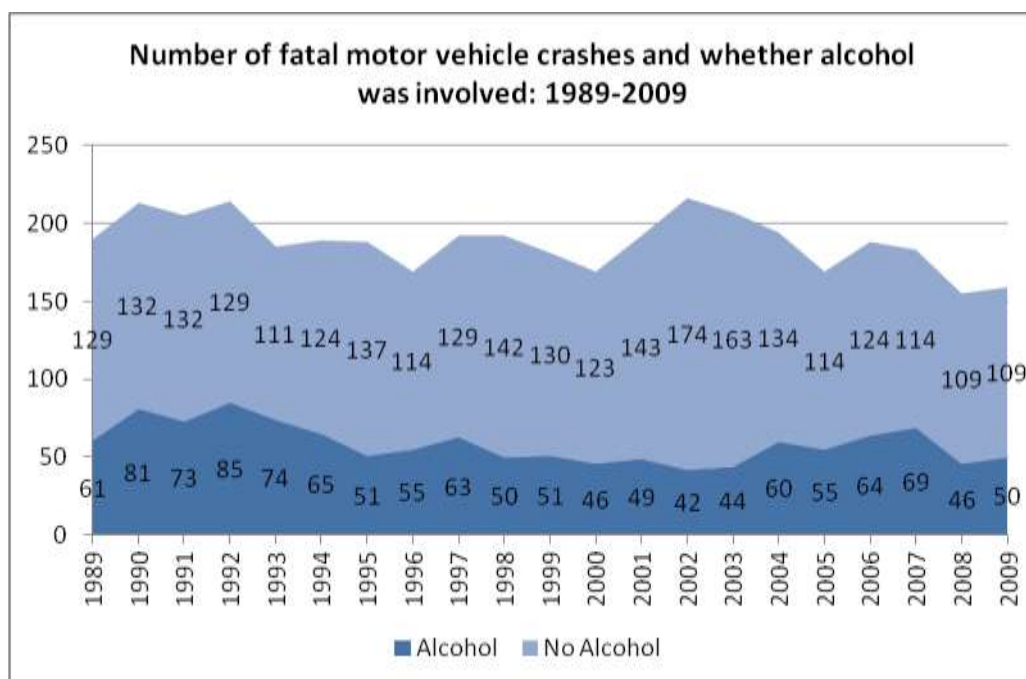
**Indicator Description: NUMBER OF FATAL MOTOR VEHICLE CRASHES INVOLVING ALCOHOL.**

This indicator presents the number fatal motor vehicle crashes where alcohol was a factor in the crash. This means that at least one driver had consumed alcohol. It is important to note that small fluctuations from year to year do not indicate overall trends.

**Why Indicator is Important:** Alcohol-related crash fatalities are a major consequence of alcohol consumption. Although alcohol was involved in only 5 percent of all crashes, more than one-third all of all fatal motor vehicle crashes in 2009 involved alcohol.

**Data Source(s):** MDOT, 1989-2009

**Summary:** In 2009, more than one-third of fatal motor vehicle crashes involved alcohol.



*Source: MDOT 1989-2009*

- While there have been some small increases from year to year, the number of vehicle crash fatalities in which alcohol was a factor has been generally trending down since 1989. A high of 85 fatal crashes involving alcohol occurred in 1992, compared to 50 in 2008.

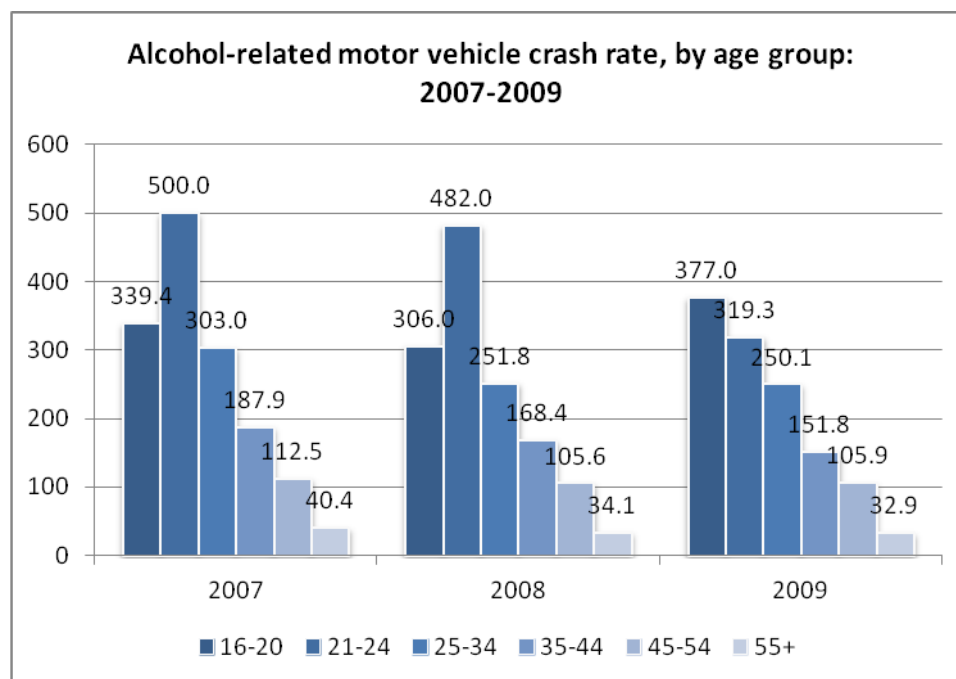


**Indicator Description: ALCOHOL-RELATED MOTOR VEHICLE CRASH RATE.** This indicator presents the number of motor vehicle crashes involving alcohol, relative to the licensed population. The rate per 100,000 allows us to see frequency with which an occurrence shows up within a population over time. In this case, the population is the number of licensees in Maine. Where applicable, the number of licensees used to calculate the rate reflects the relevant age group or gender.

**Why Indicator is Important:** More than one-third all of motor vehicle crashes resulting in fatalities involve alcohol.

**Data Source(s):** MDOT, 2007-2009

**Summary:** In 2009, drivers between the ages of 16 and 20 had the highest alcohol-related crash rates, followed closely by drivers between the ages of 21 and 24.



*Source: MDOT 2007-2009*

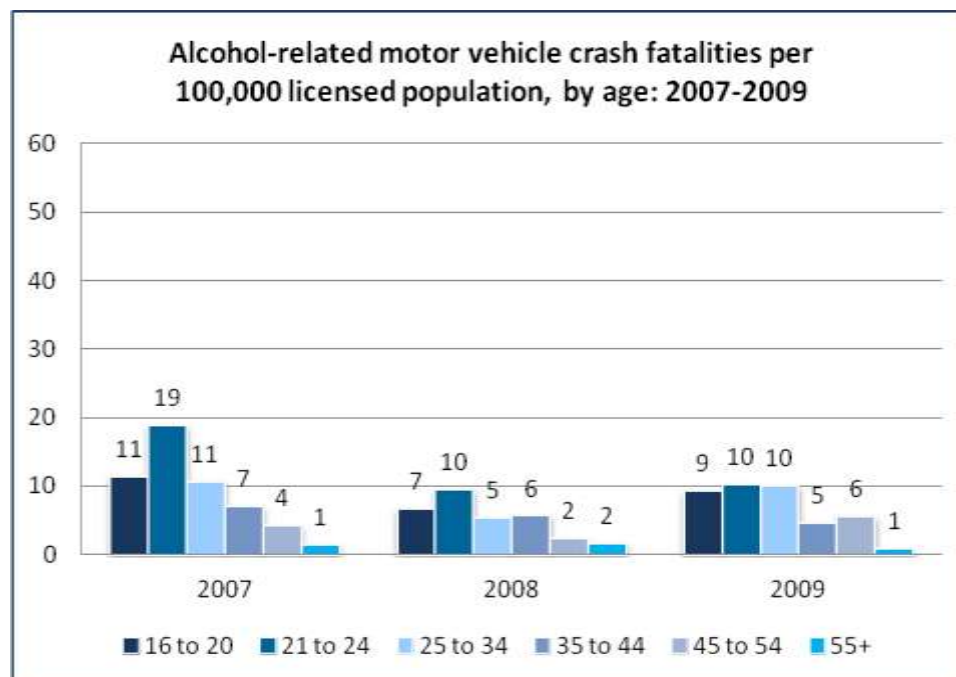
- In 2007 and 2008, young adults between the ages of 21 and 24 had the highest alcohol-related crash rates (500 and 482 per 100,000 respectively). However, this declined in 2009 to 319 per 100,000 licensees.
- Conversely, in 2009 the rate of alcohol-related crashes increased among 16 to 20 year olds to 377 per 100,000 licensees from 306 in 2008 and 340 in 2007 per 100,000 licensees.

**Indicator Description: ALCOHOL-RELATED MOTOR VEHICLE CRASH FATALITY RATE.** This indicator presents the number of fatalities resulting from motor vehicle crashes that involved alcohol, relative to the licensed population. The rate per 100,000 allows us to see frequency with which an occurrence shows up within a population over time. In this case, the population is the number of licensees in Maine. Where applicable, the number of licensees used to calculate the rate reflects the relevant age group or gender.

**Why Indicator is Important:** More than one-third all of motor vehicle crashes resulting in fatalities involve alcohol.

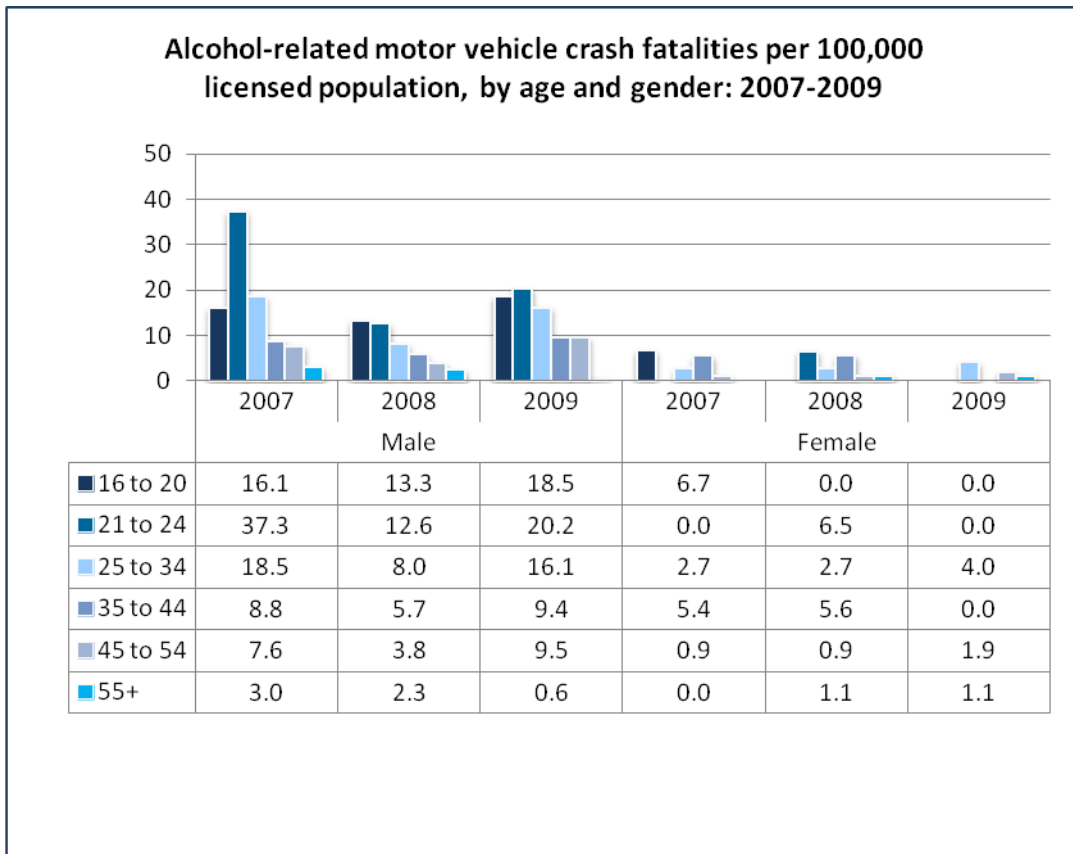
**Data Source(s):** MDOT, 2007-2009

**Summary:** Males have much higher crash fatality rates than females. Among younger populations rates of alcohol-related motor vehicle crash fatality appear to have decreased since 2007 although the numbers are too small to determine whether this is an actual trend.



*Source: MDOT 2007-2009*

- In 2009, 16 to 20 year olds, 21 to 24 year olds and 25 to 34 year olds exhibited about the same rate of fatalities from alcohol-related motor vehicle crashes (between 9 and 10 per 100,000 licensees). This appears to present a slight decrease since 2007 although the numbers are too small to determine whether this is an actual trend.



Source: MDOT 2007-2009

- The highest rate of alcohol-related motor vehicle crash fatalities rates tends to be among males, particularly those between the ages of 21 to 24, although it appears to be decreasing. For example, the rate among young men in this age range in 2007 was 37.3 per 100,000, compared to 20.2 per 100,000 in 2009. The group with the second highest rates in 2009 was males ages 16 to 20 at 18.5 per 100,000. Also of concern in 2009 were males ages 25 to 30 who had 16.1 fatalities per 100,000.

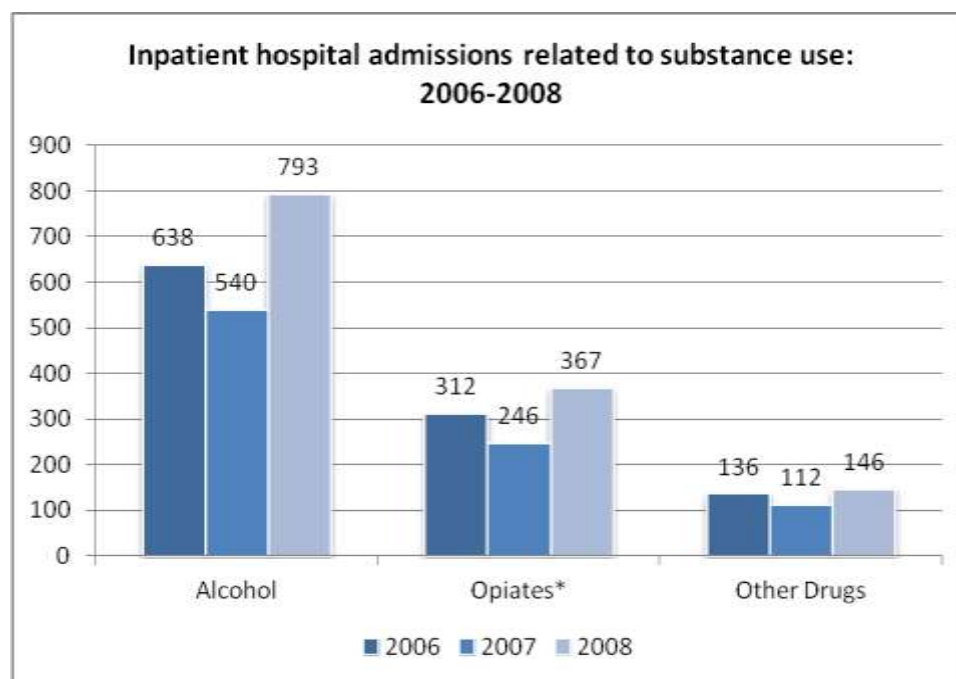
## Hospital Visits Related to Substance Abuse

**Indicator Description: INPATIENT ADMISSIONS RELATED TO SUBSTANCE USE.** Number of inpatient hospital admissions where alcohol, opiates, or other drugs was recorded as the primary diagnosis for which services were sought at admission. “Inpatient” refers to a patient whose treatment needs at least one night's residence in a hospital. The substance for which treatment was received was identified through hospital codes (ICD-9 codes) and includes those related to psychoactive substances (303–305).

**Why Indicator is Important:** Hospital admissions related to substance use are an indication of injury sustained through substance use and the impact it has on the healthcare system.

**Data Source(s):** MHDO, 2006-2008

**Summary:** Inpatient admissions related to substance use increased sharply for alcohol and opiates in 2008.



Source: MHDO 2006-2008

\*Includes prescription narcotics, methadone, and heroin.

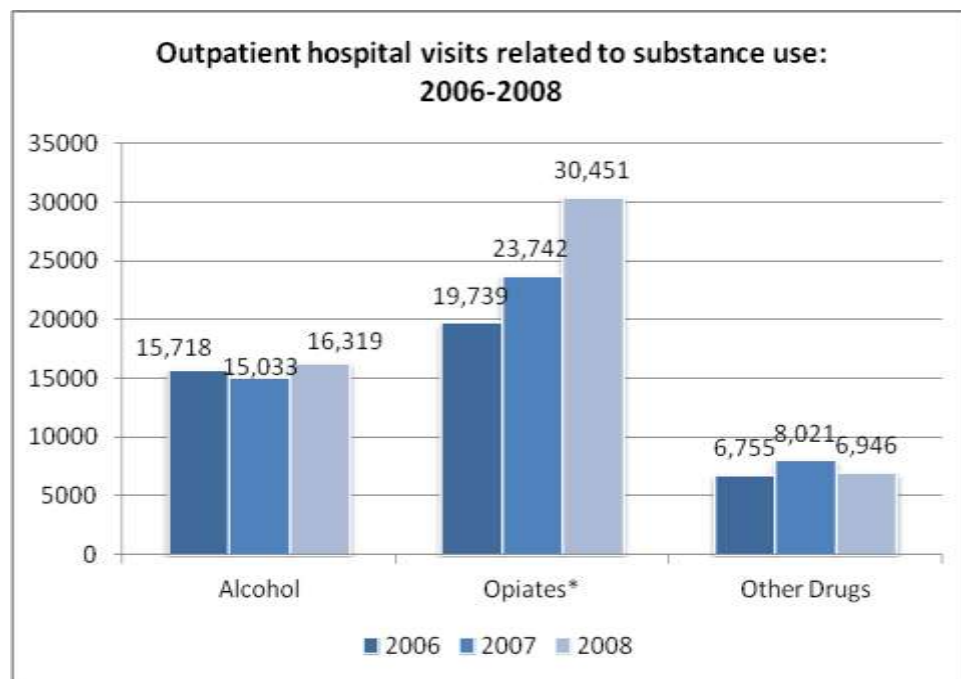
- Overall, inpatient admissions related to substance use decreased from 2006 to 2007, but increased sharply for alcohol and opiates in 2008. Among admissions for substance use, alcohol the substance most often associated with inpatient visits in 2008 (793), followed by opiates (367).

**Indicator Description: OUTPATIENT HOSPITAL VISITS RELATED TO SUBSTANCE USE.** Number of outpatient hospital admissions where alcohol, opiates, or other drugs was recorded as the primary diagnosis for which services were received. “Outpatient” refers to patients who receive treatment at a hospital or clinic but are not admitted overnight. The substance for which treatment was received was identified through hospital codes (ICD-9 codes) and includes those related to psychoactive substances (303–305).

**Why Indicator is Important:** Outpatient hospital visits related to substance use are an indication of injury sustained through substance use and the impact it has on the healthcare system.

**Data Source(s):** MHDO, 2006-2008

**Summary:** Outpatient visits related to substance abuse increased sharply in 2008 and opiates were indicated as the substance of concern nearly twice as often as alcohol.



Source: MHDO 2006-2008

\*Includes prescription narcotics, methadone, and heroin.

- Hospital outpatient visits related to substance abuse increased sharply in 2008, driven primarily by visits related to opiates (including prescription narcotics, methadone, and heroin) which increased from 23,742 visits in 2007 to 30,451 in 2008. Outpatient visits related to alcohol also increased between 2007 and 2008 from 15,033 visits to 16,319. Outpatient visits related to other drugs have been low in comparison and declined slightly between 2007 and 2008, accounting for slightly fewer than 7,000 hospital outpatient visits.

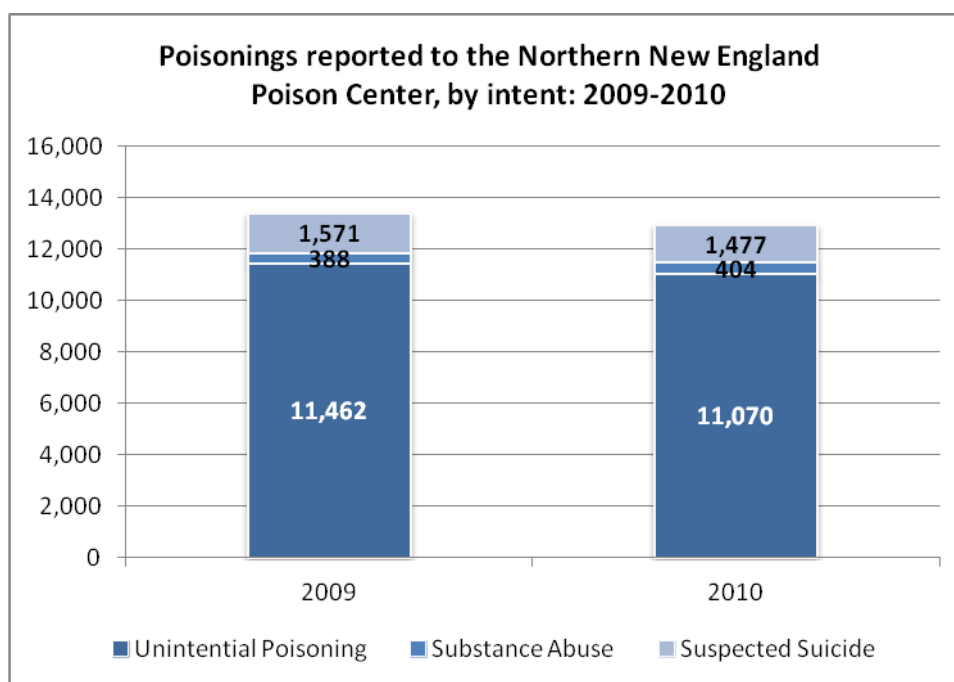
## Poisonings Related to Substance Use

**Indicator Description: POISONING CASES DOCUMENTED BY THE POISON CENTER.** This measure reflects the number of calls to the Northern New England Poison Center in which the Center determined that a poisoning occurred. These calls are for the state of Maine only. The Center reports poisonings in three categories: unintentional poisonings, meaning those that are accidental; suspected substance abuse cases, meaning those in which the Center believes the intent is for an individual to get high; and suspected suicide cases, meaning staff at the Center determine that the individual attempted suicide. The categories reflect the caller's self-report and are not considered clinical or medical diagnoses.

**Why Indicator is Important:** The exposure to and ingestion of damaging substances can have many physiologic side effects. Poisonings can be influenced by programs to prevent substance abuse, accidental poisoning, suicide and fatal interaction among medications.

**Data Source(s):** NNEPC, 2009-2010

**Summary:** About 3 percent (404) of all poisoning calls received by the Poison Center in 2010 were substance abuse cases.



*SOURCE: NNEPC 2009-2010*

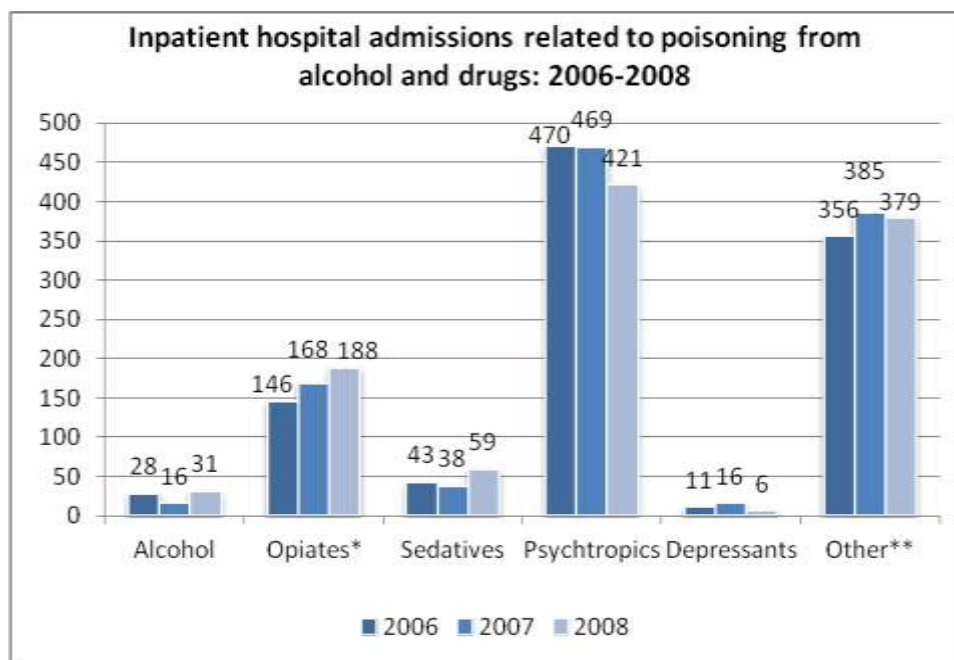
- The majority of calls to the Northern New England Poison Center during 2009 and 2010 in which a poisoning occurred related to unintentional poisonings. About 3 percent (404) of all poisoning calls received in 2010 were substance abuse cases, up slightly from 2 percent (388) in 2009.

**Indicator Description: INPATIENT ADMISSIONS RELATED TO SUBSTANCE POISONING.** Number of inpatient hospital admissions in which the recorded reason for admission included poisoning by alcohol, opiates, sedatives, psychotropics, depressants, and other drugs. “Inpatient” refers to a patient whose treatment needs at least one night's residence in a hospital. The substance for which treatment was received was identified through hospital codes (ICD-9 codes) and includes those related to poisoning by drugs, medicinal and biological substances (960-979) and toxic effects of alcohol (980).

**Why Indicator is Important:** Hospital admissions related to substance poisoning are an indication of injury sustained through substance use and the impact it has on the healthcare system.

**Data Source(s):** MHDO, 2006-2008

**Summary:** Among inpatient admissions for substance poisoning, psychotropic medications are indicated most often as the substance of concern followed by opiates.



Source: MHDO, 2006-2008

\*Includes prescription narcotics, methadone, and heroin.

\*\*Includes legal pharmaceuticals not included elsewhere.

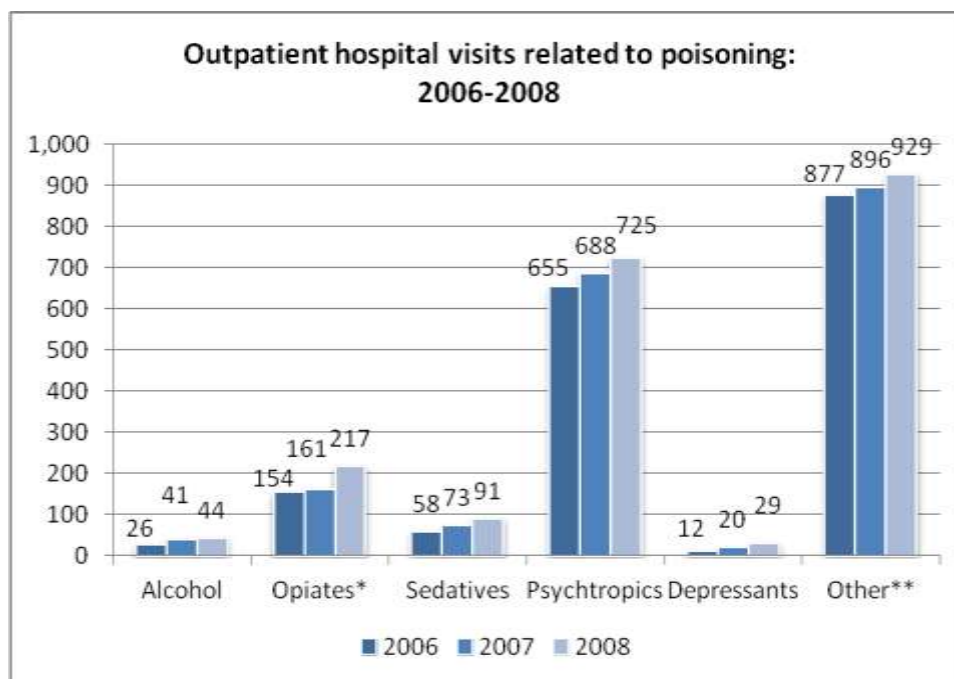
- Among inpatient admissions for substance poisoning, psychotropic medications are indicated most often as the substance of concern, though the number of admissions due to psychotropics decreased in 2008 from 2006 and 2007. Admissions due to alcohol, opiates, and sedative poisoning all increased for 2008, while admissions for depressant and other drug poisonings decreased in that year. Admissions for opiate poisoning increased steadily from 2006 through 2008.

**Indicator Description: OUTPATIENT VISITS RELATED TO SUBSTANCE POISONING.** Number of outpatient hospital visits in which the recorded reason for the visit included poisoning by alcohol, opiates, sedatives, psychotropics, depressants, and other drugs. “Outpatient” refers to patients who receive treatment at a hospital or clinic but are not admitted overnight. The substance for which treatment was received was identified through hospital codes (ICD-9 codes) and includes those related to poisoning by drugs, medicinal and biological substances (960-979) and toxic effects of alcohol (980).

**Why Indicator is Important:** Hospital visits related to substance poisoning are an indication of injury sustained through substance use and the impact it has on the healthcare system.

**Data Source(s):** MHDO, 2006-2008

**Summary:** Outpatient hospital visits related to substance-related poisonings have increased.



Source: MHDO, 2006-2008

\*Includes prescription narcotics, methadone, and heroin.

\*\*Includes legal pharmaceuticals not included elsewhere.

- Overall, outpatient hospital visits related to substance poisoning increased from 2006 to 2008. Visits related to opiates showed the greatest increase in 2008.



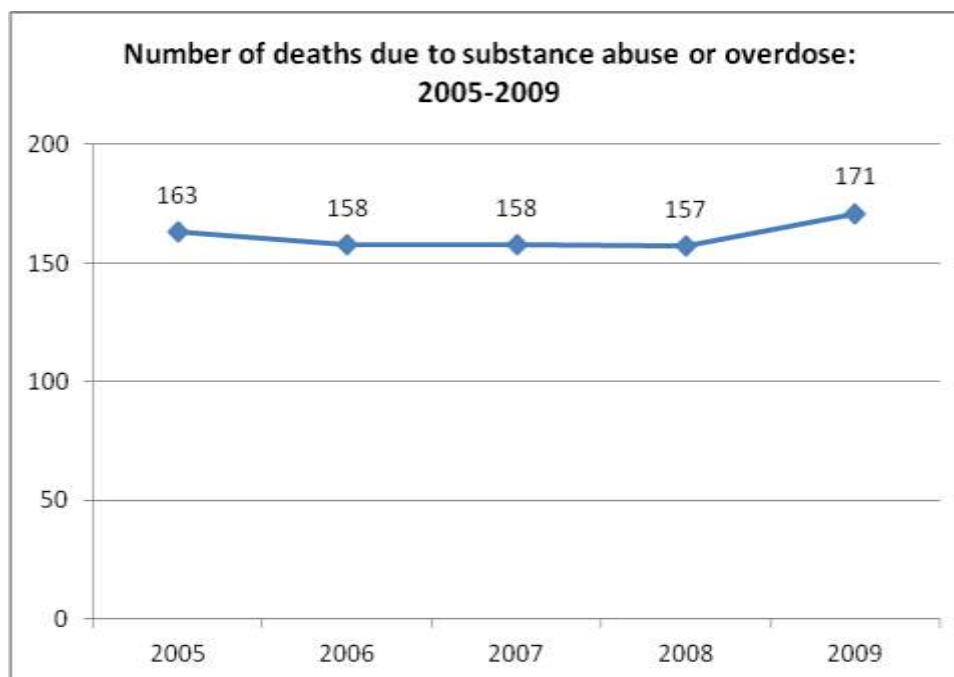
## Overdose Deaths

**Indicator Description: DEATHS DUE TO SUBSTANCE ABUSE.** This measure reflects the number of deaths where the cause of death was directly related to the consumption of one or more substances. This excludes deaths where a substance may have been ingested prior to engaging in a behavior that resulted in death (e.g., drunk driving) or where lifetime substance use and abuse may have impacted health (e.g., cirrhosis).

**Why Indicator is Important:** One of the most extreme consequences of alcohol and drug abuse is overdose death; that is, the substance(s) consumed played a direct role in an individual's death. These are seen as potentially preventable deaths.

**Data Source(s):** NVSS, 2005-2009

**Summary:** There were 171 overdose deaths in Maine in 2009.



*Source: NVSS, 2005-2009*

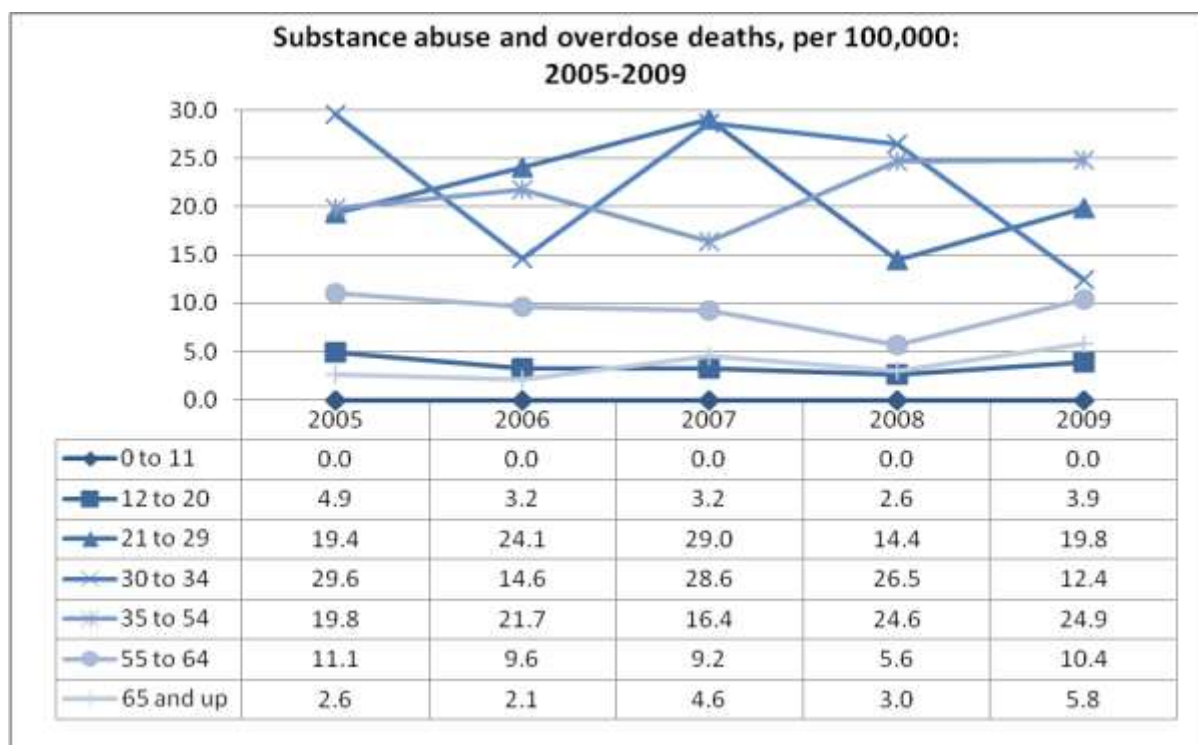
- Since 2005, the number of deaths due to substance abuse or overdose was relatively stable across Maine. However, the number rose from 157 deaths in 2008 to 171 deaths in 2009.

**Indicator Description: RATE OF DEATHS DUE TO SUBSTANCE ABUSE.** This measure estimates the rate of deaths due to substance abuse or overdose per 100,000 people. The rate per 100,000 allows us to see frequency with which an occurrence shows up within a population over time.

**Why Indicator is Important:** Drug-induced deaths are influenced by programs to prevent: substance abuse, accidental poisoning, suicide and fatal interaction among medications.

**Data Source(s):** NVSS, 2005-2009

**Summary:** Adults between the ages of 35 to 54 had the highest rate of death due to substance abuse or overdose during 2009, followed by those between the ages of 21 and 29.



Source: NVSS, 2005-2009

- At 24.9 deaths per 100,000, people between the ages of 35 to 54 had the highest rate of death due to substance abuse or overdose during 2009. The second highest rate was among people between the ages of 21 to 29 years old at 19.8 per 100,000.
- Since 2005, the highest rates of substance abuse and overdose deaths per 100,000 have been among adults between the ages of 21 and 54. However, there has been variation within these age groups, most notably among 30 to 34 year olds where the substance abuse and overdose death rate declined sharply in 2009 to 12.4 per 100,000.
- Also noteworthy is that the overdose death rate has doubled among the 55 to 64 year old population since 2005.

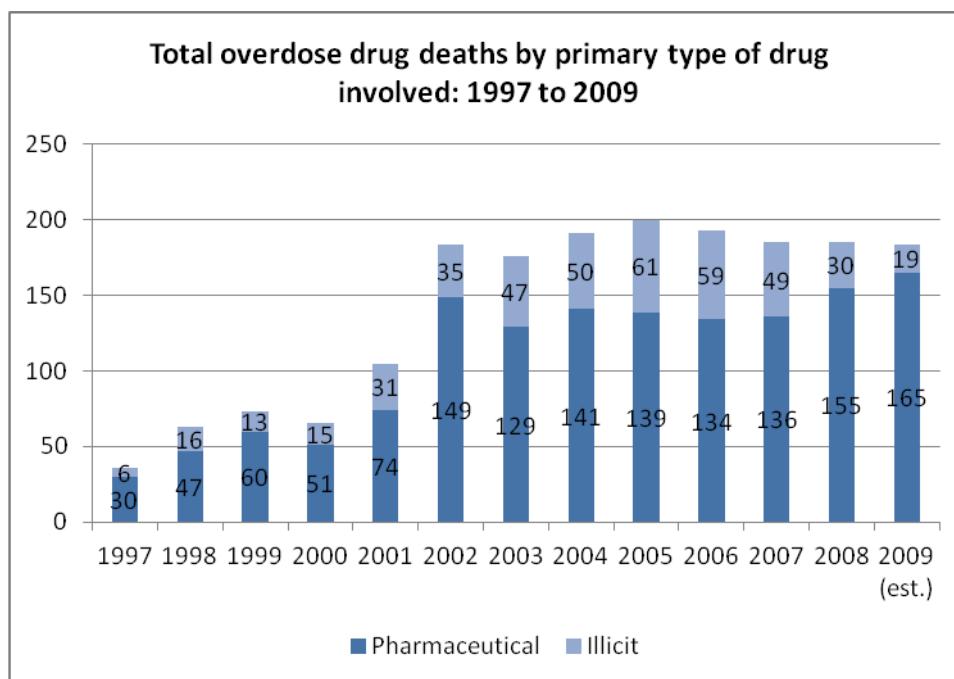
**Indicator Description: DRUG OVERDOSE DEATHS ASSOCIATED WITH SPECIFIC DRUG TYPES.**

When a death is investigated, the Medical Examiner determines what substances contributed to the individual's death. This measure examines the percent of drug deaths associated with certain types of substances. Note that more than one substance can be determined as contributing to death. Pharmaceuticals are drugs or medicine prepared or dispensed in pharmacies and used in medical treatment; illicit drugs are those illegally produced and sold outside of medical channels. Data from 2009 are still "estimated" because in some cases the cause of death has not been finalized.

**Why Indicator is Important:** In addition to the fact that some substances are used in greater numbers than others, some substances are more lethal than others.

**Data Source(s):** Office of Chief Medical Examiner, 1997-2009<sup>8</sup>

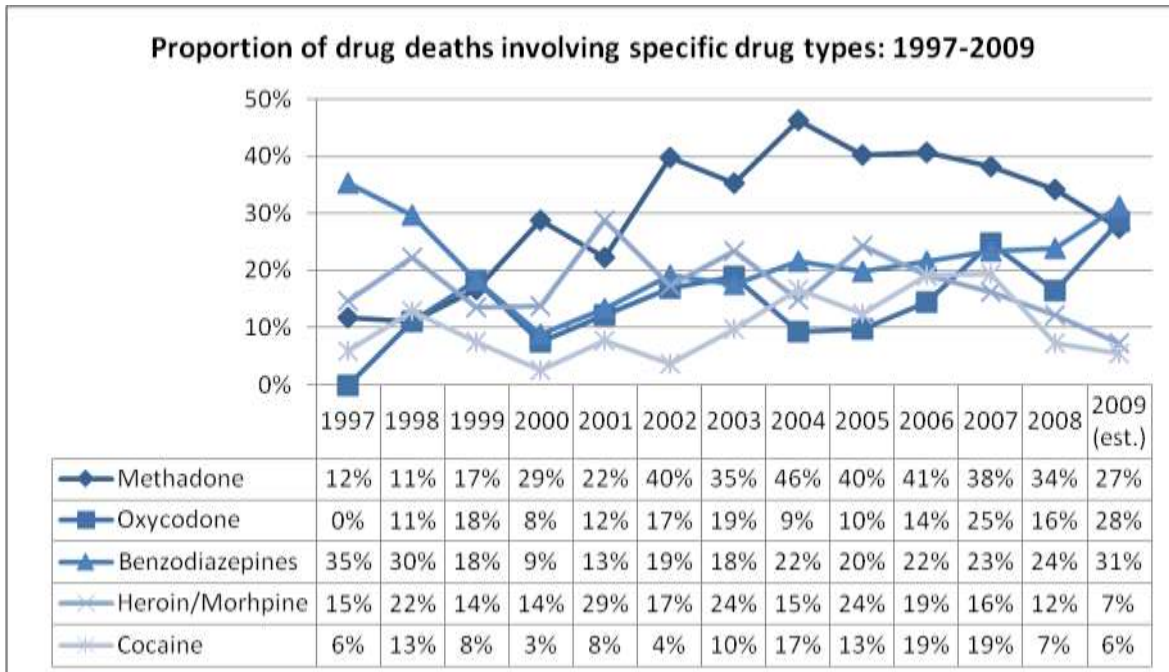
**Summary:** Overdose deaths associated with pharmaceuticals—including methadone, oxycodone, and benzodiazepines—are on the rise while overdose deaths associated with illicit drugs have declined.



*Source: Office of the Chief Medical Examiner, 1997-2009*

- Since 1998, the total overdose deaths have been rising, to 179 total deaths in 2009. Of note, those related to pharmaceutical drugs, opposed to illicit drugs, have been rising dramatically over the same period. By 2009, 165 of overdose deaths (92%) were attributed to pharmaceuticals, compared to 19 overdose deaths related to illicit drugs.

<sup>8</sup> Sorg, Marcella H. "Drug-Induced Deaths in Maine: 1997-2008, With Estimates for 2009." (2010).



*Source: Office of the Chief Medical Examiner, 1997-2009*

- Starting in 1998, methadone was increasingly involved in drug overdose deaths, peaking at 46 percent in 2004. However, estimates from 2009 showed a decrease in the proportion of drug deaths involving methadone to 27 percent, while the proportion involving oxycodone (28%) and benzodiazepine (31%) appeared to be rising.

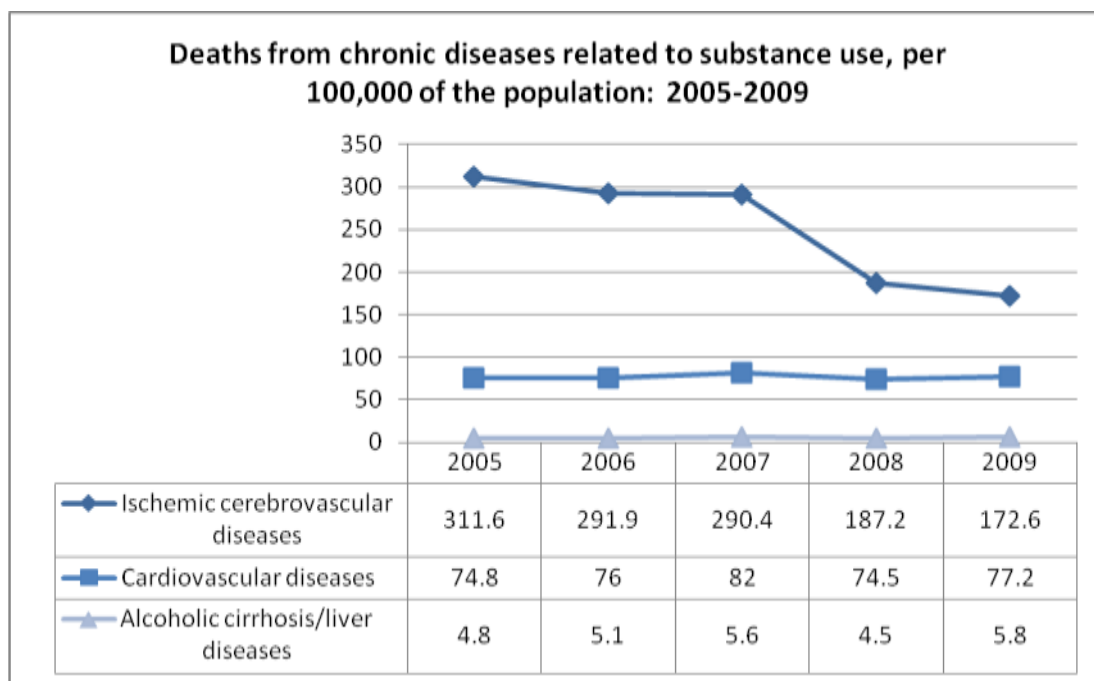
## Morbidity and Mortality

**Indicator Description: RATES OF DEATH FROM CHRONIC CONDITIONS ASSOCIATED WITH SUBSTANCE USE.** Every death in Maine has a recorded cause. This indicator examines the rate of chronic diseases commonly associated with substance use, including ischemic cerebrovascular diseases (commonly known as stroke), cardiovascular diseases, and alcohol-related liver diseases. In this case, a rate per 100,000 of the state population is used to compare the prevalence across certain populations.

**Why Indicator is Important:** Prolonged and lifelong use of substances, including tobacco and alcohol, can often result in chronic health problems later in life. As a consequence of substance abuse, these health-related deaths are considered potentially preventable.

**Data Source(s):** NVSS, 2005-2009

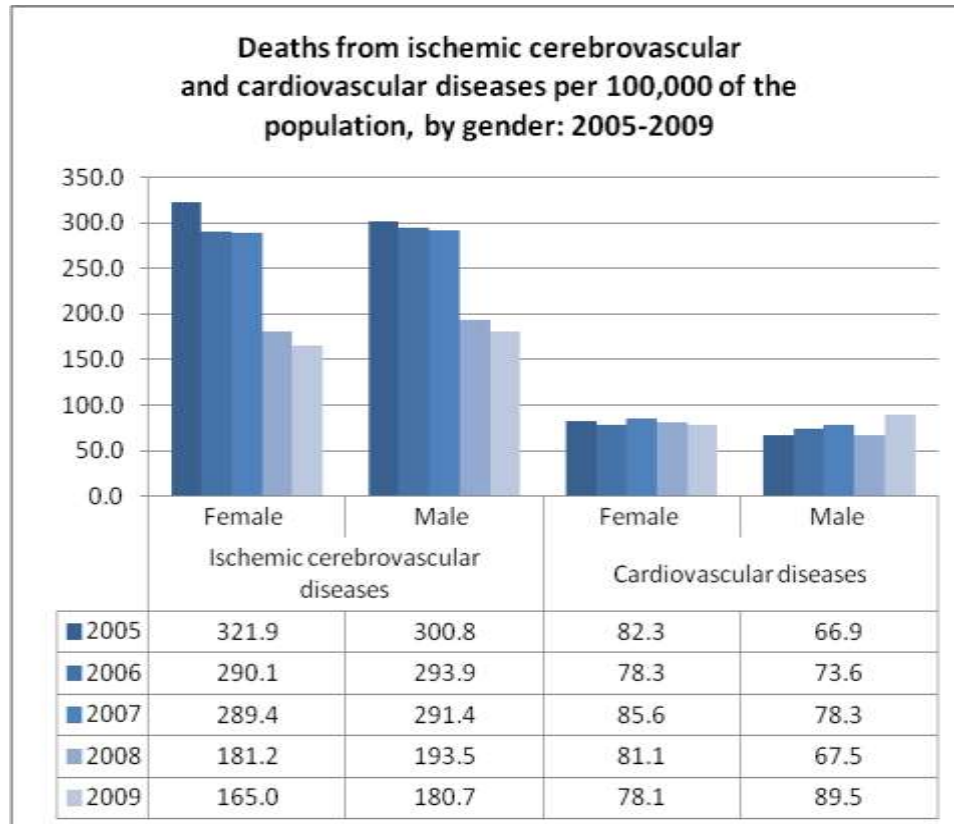
**Summary:** Ischemic cerebrovascular diseases were more prevalent among Mainers in 2009 than cardiovascular diseases and alcoholic cirrhosis. Cirrhosis and liver disease related to alcohol were more likely among men than women.



Source: NVSS, 2005-2009

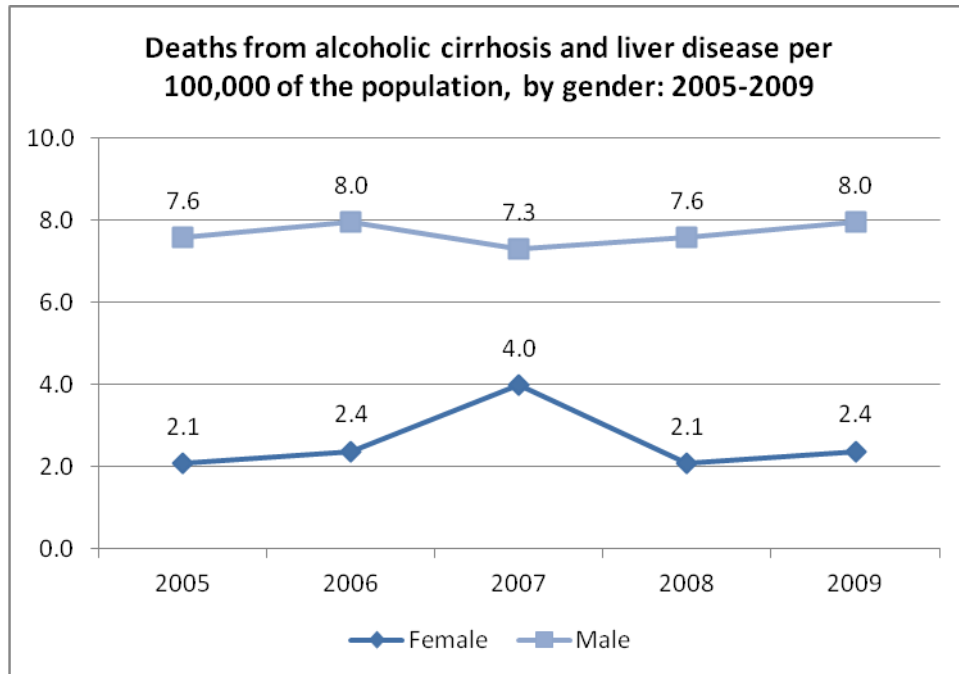
- At 172.6 deaths per 100,000, ischemic cerebrovascular diseases were more prevalent among Mainers in 2009 than cardiovascular diseases (77.2) and alcoholic cirrhosis (5.8). The annual death rate per 100,000 decreased from 2005 to 2009 for ischemic cerebrovascular diseases, while the rates of cardiovascular diseases and alcoholic cirrhosis/liver disease remained constant during this same time period.

- Although not pictured, deaths from cerebrovascular diseases and cardiovascular diseases afflict the older population (those 55 and older) at higher rates, whereas alcoholic cirrhosis/liver disease also has a high rate of incidence among the population between the ages of 35 and 54.



Source: NVSS, 2005-2009

- Rates of death due to ischemic cerebrovascular diseases and cardiovascular diseases were similar for both males and females. Across both groups, deaths from ischemic cerebrovascular diseases were more common than cardiovascular diseases. While both groups exhibit sharp declines between 2005 and 2009, the decrease was more dramatic among females (from about 321.9 per 100,000 in 2005 to 165 in 2009). The rate of cardiovascular disease per 100,000 males rose slightly in that same time period however the rise was not as dramatic.



*Source: NVSS, 2005-2009*

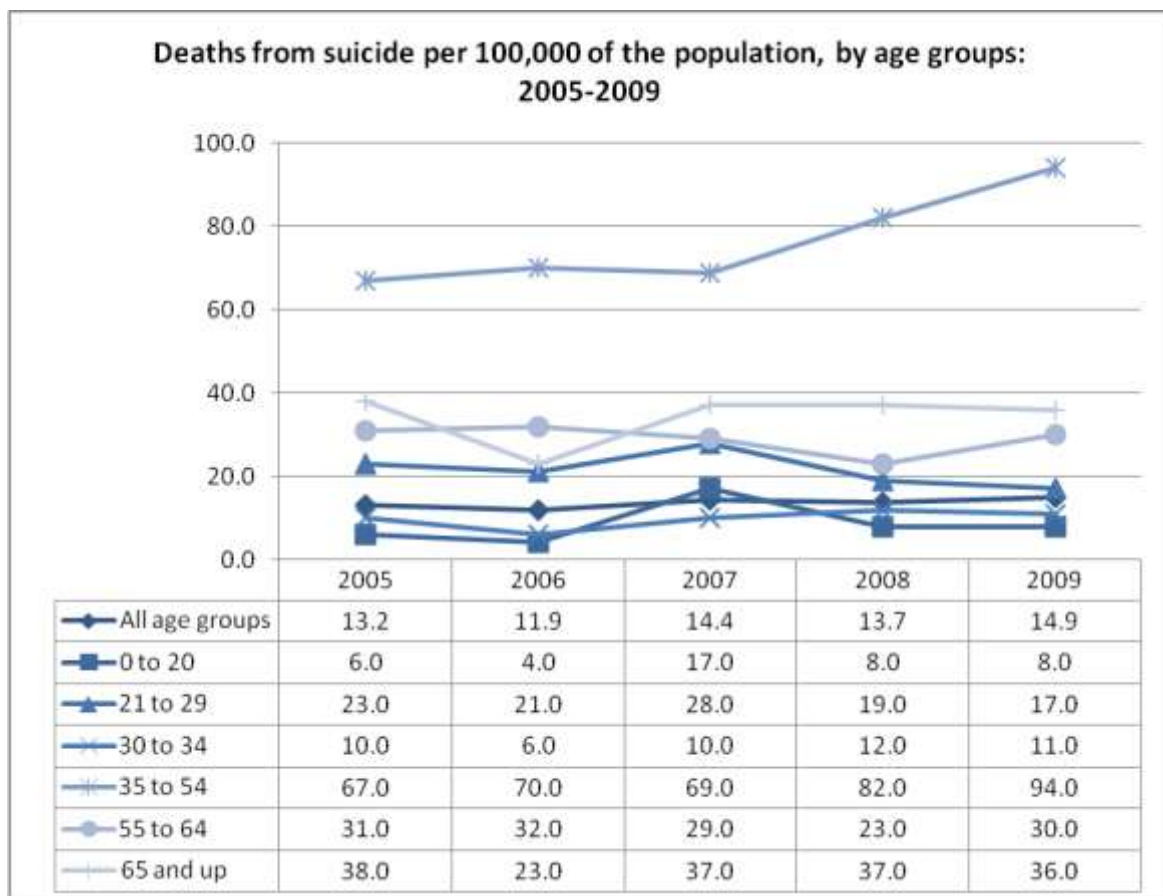
- In 2009, cirrhosis and liver disease related to alcohol were more likely among men (8 per 100,000) than women (2.4 per 100,000). This pattern has been consistent since 2005.

**Indicator Description: RATE OF VIOLENT DEATHS.** Every death in Maine has a recorded cause. This indicator examines deaths that were the result of violence, i.e., those classified as a suicide or homicide. In this case, a rate per 100,000 of the state population is used to compare the prevalence across certain populations.

**Why Indicator is Important:** Although not the leading cause of death, substance use and abuse is often a factor in homicides and suicides. For example, it has been estimated that about 47 percent of homicides and 23 percent of suicides are attributable to alcohol nationally.

**Data Source(s):** NVSS, 2005-2009

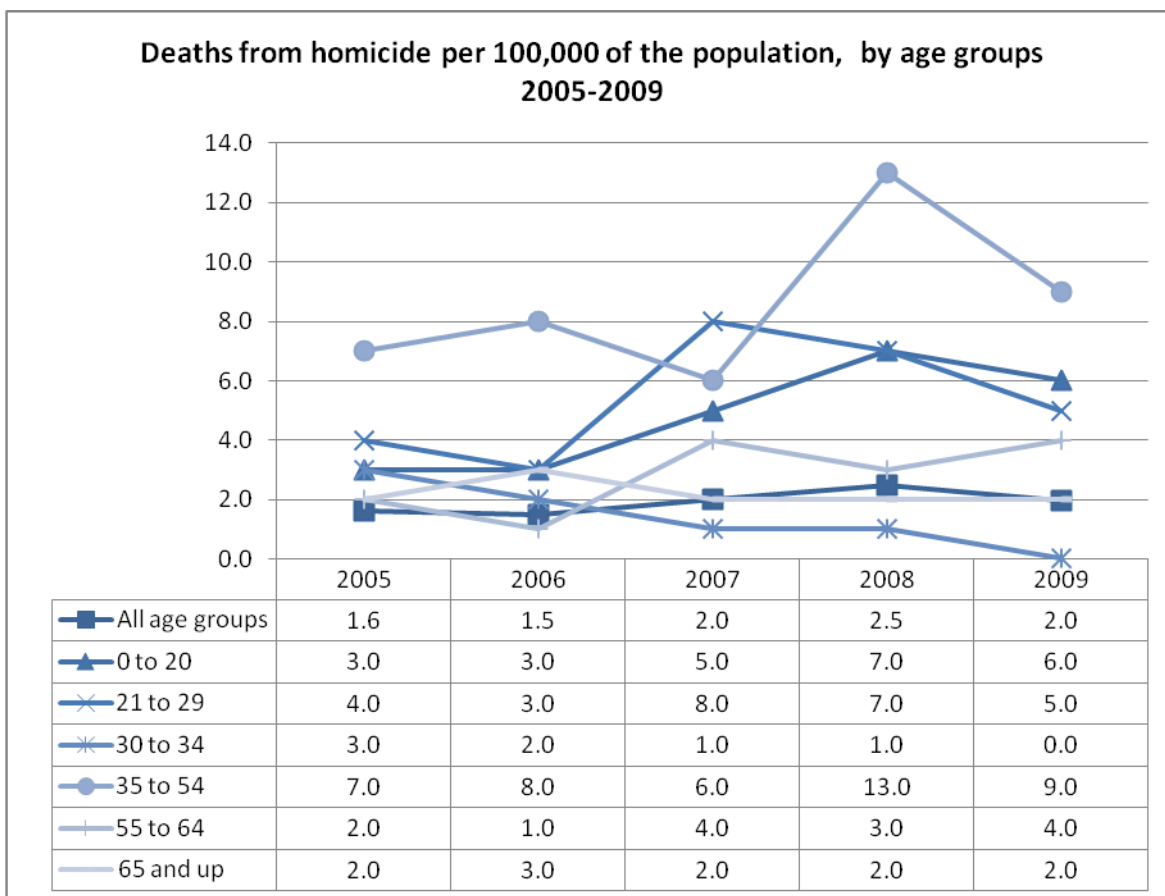
**Summary:** Violent deaths are more likely among men and people between the ages of 35 to 54. The suicide rate among the 35 to 54 population appears to be increasing.



Source: NVSS, 2005-2009

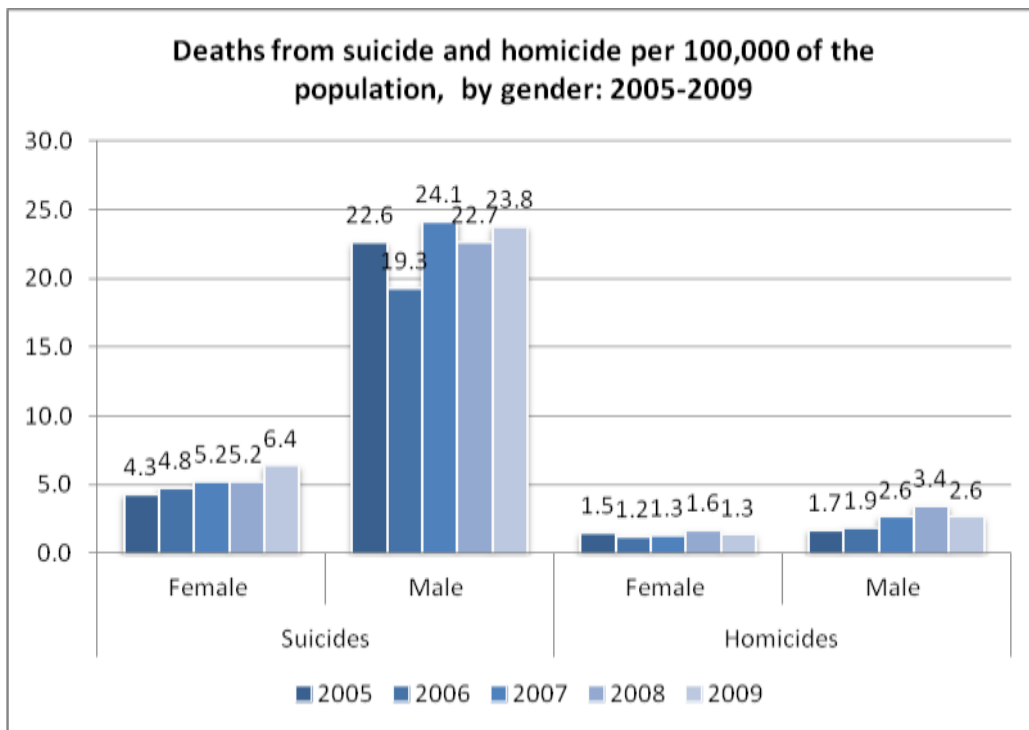
- The overall rate of suicide deaths in Maine has remained fairly stable since 2005, increasing slightly to 14.9 per 100,000 in 2009. However, deaths from suicide have been most prevalent among the 35 to 54 year old population since 2005 and this has been increasing sharply since 2007, to 94 suicides per 100,000 in 2009.





Source: NVSS, 2005-2009

- The overall rate of homicide deaths in Maine has remained fairly stable since 2005, increasing slightly to 2 per 100,000 in 2009. However, deaths from homicide were most prevalent among the 35 to 54 year old population at rate of 9 per 100,000 in 2009.



Source: NVSS, 2005-2009

- Suicide deaths were much more common among men in 2009 (23.8 per 100,000), compared to women (6.4 per 100,000), a pattern that shows little change since 2005. Although the homicide rate is much lower, the rate for men was double the homicide rate for women in 2009 at 2.6 and 1.3 respectively. These rates have been relatively consistent between 2005 and 2009.

## Factors Contributing to Substance Use and Abuse

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A body of substance abuse prevention research has identified certain groups of factors that “cause” or have an impact on substance use and the consequences related to use. That is, they appear to influence the occurrence and magnitude of substance use and its related consequences. Generically, these causal factors (also known as contributing factors) are categorized into groups which include:

- Social Access (e.g., getting drugs and alcohol from friends or family)
- Retail Availability (e.g., retailer not carding properly)
- Pricing & Promotion (e.g., two-for-one specials, industry sponsorships or signage)
- Social/Community Norms (e.g., parental/community attitudes and beliefs)
- Enforcement (e.g., lack of compliance checks)
- Perceptions of Harm (e.g., individuals’ belief that using a substance is harmful)
- Perceived Risk of Being Caught (e.g., individuals’ belief that s/he will be caught by parents or police)<sup>9</sup>

Substance abuse prevention in Maine is undertaken with the assumption that making changes to these factors at the community level will result in changing behaviors around substance use and related problems. It is through positively impacting these factors that Maine can achieve population-level changes in substance consumption and consequences.

Although most high students seem to perceive that regularly use of substance poses a risk of harm and that their parents and community think it wrong, few think they will be caught by the police and most think it is easy to obtain alcohol and marijuana. Among adults, young adults are least likely to perceive risks of harm from using alcohol and marijuana regularly.

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<sup>9</sup> "A General Causal Model to Guide Alcohol, Tobacco and Illicit Drug Prevention: Assessing the Research Evidence." *Multi-State Technical Assistance Workshop*. Washington, DC. March 16, 2006. Bonnie, Richard J., and Mary Ellen O’Connell, eds. (2004). *Reducing Underage Drinking: A Collective Responsibility*. (2004). The National Academies Press: Washington, DC.

## Availability and Accessibility

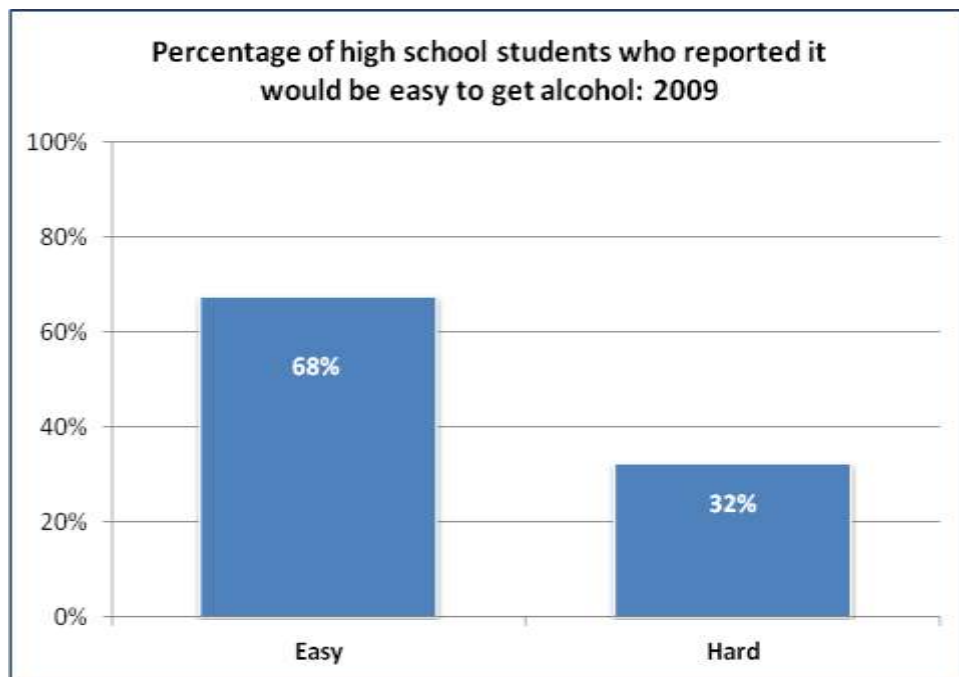
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**Indicator Description: EASE OF OBTAINING ALCOHOL BY UNDERAGE YOUTH.** This indicator reflects the percentage of high school students (grades 9 to 12) who reported that it would be easy or very easy for them to get alcohol if they wanted some.

**Why Indicator is Important:** In 2009, students who reported that they thought alcohol was easy to obtain were over 2.5 times as likely to report consuming alcohol within the past month compared to students who did not think it was easy obtain.

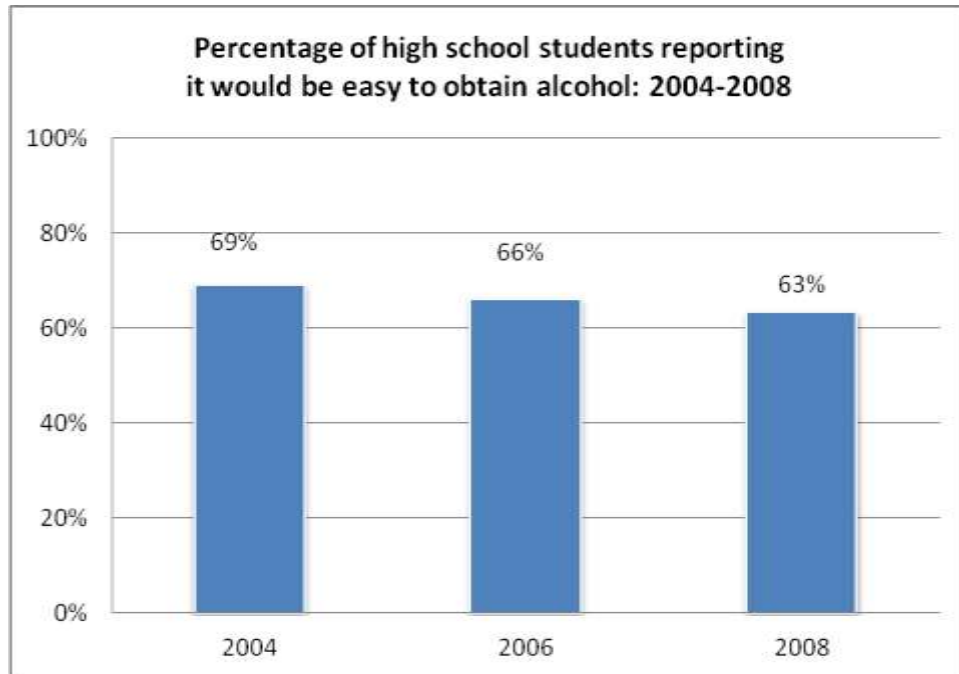
**Data Source(s):** MYDAUS, 2004-2008; MIYHS 2009

**Summary:** Overall, about two out of three high school students think it would be easy to obtain alcohol.



Source: MIYHS 2009

- In 2009, two out of three high school students (or 68%) reported it would be easy to get alcohol compared to 38 percent who said it would be hard.



*Source: MYDAUS 2004-2008*

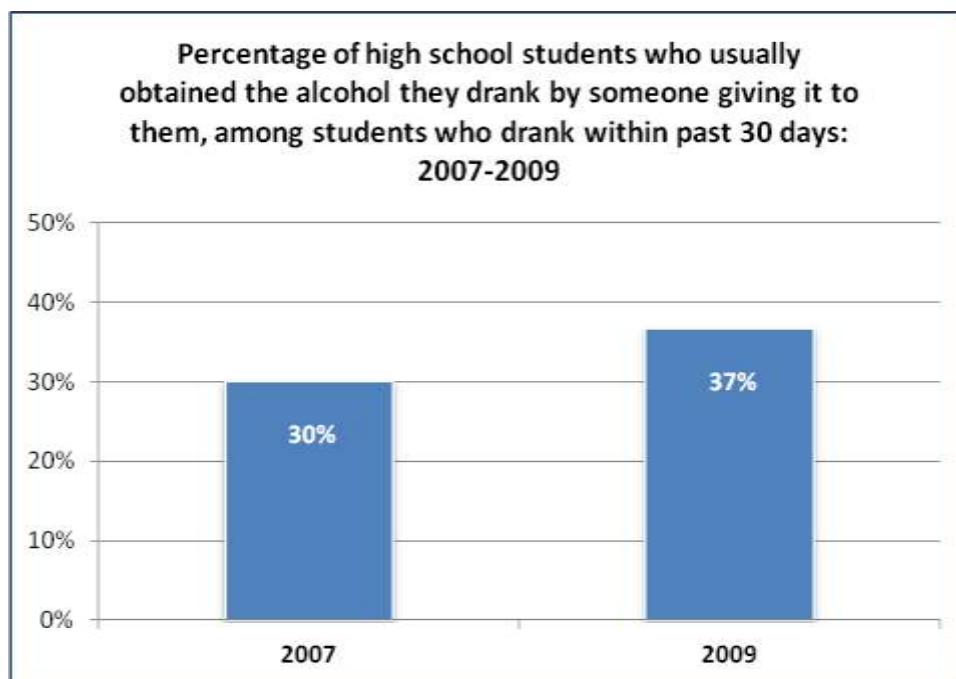
- Between 2004 and 2008, the proportion of high school students who felt it would be easy to obtain alcohol decreased, from 69 percent in 2004 to 63 percent in 2008.

**Indicator Description: UNDERAGE YOUTH RECEIVING ALCOHOL FROM OTHERS.** Among high school students who drank within the past 30 days, this measure reflects the percentage reporting that they usually obtain the alcohol they drink from someone giving it to them.

**Why Indicator is Important:** Easy social access to alcohol is major contributing factor to underage drinking. Students who report that alcohol is easy to get are over 2.5 times as likely to drink as their peers who report it is not easy.

**Data Source(s):** YRBSS, 2007-2009

**Summary:** Social access appears to be a primary way that underage youth obtain alcohol.



*Source: MIYHS 2009*

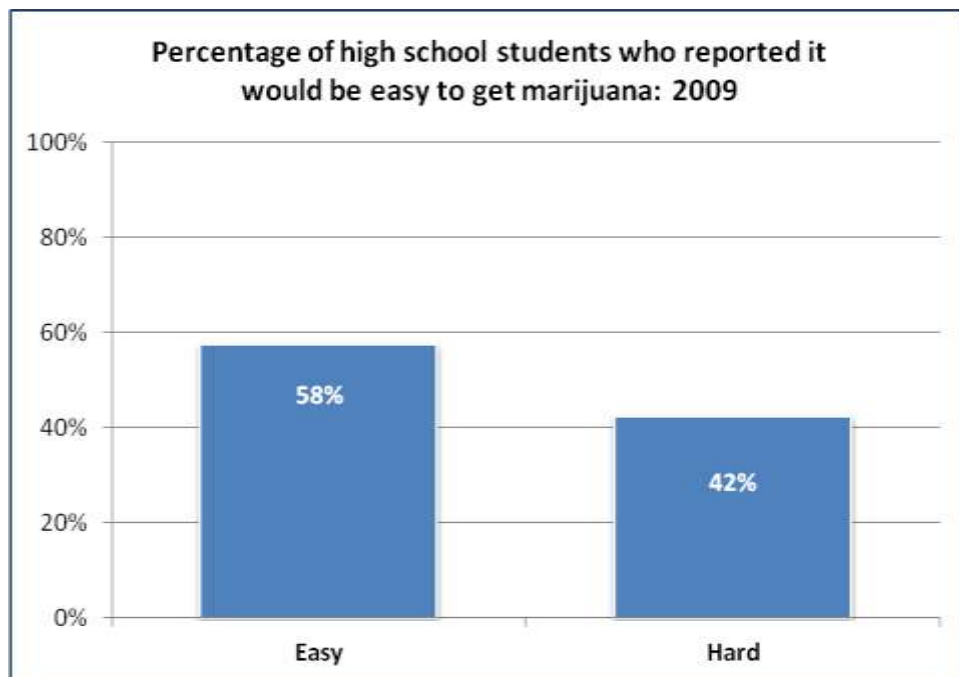
- In 2009, one in three high school students who consumed alcohol in the past month reported that someone gave them the alcohol they consumed (37). This has increased from 30 percent in 2007.

**Indicator Description: EASE OF OBTAINING MARIJUANA BY YOUTH.** The percentage of high school students reporting it would be easy or very easy to obtain marijuana if they wanted it.

**Why Indicator is Important:** In 2009, students who reported that they thought marijuana was easy to obtain were 5.6 times as likely to use marijuana compared to their peers who thought it was difficult to obtain.

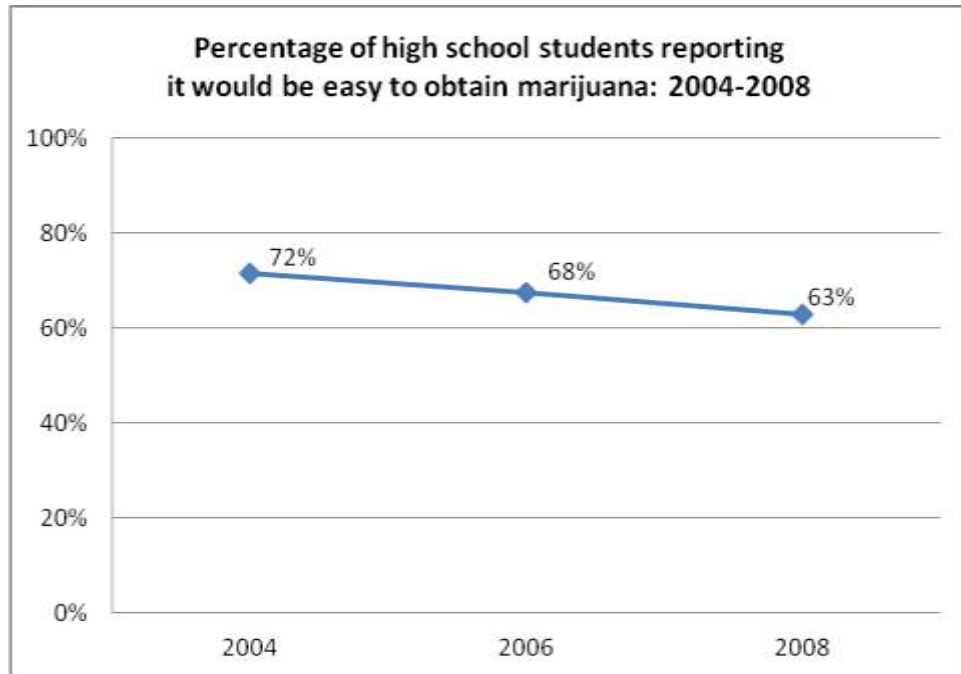
**Data Source(s):** MIYHS 2009; MYDAUS, 2004-2008

**Summary:** Over half of high school students believed that marijuana was easy to obtain. This has been decreasing since 2004.



Source: MIYHS 2009

- In 2009, well over half (58%) of high school students felt it would be easy to get marijuana, compared to 42 percent who felt it would be hard.



*Source: MYDAUS 2004 - 2008*

- The percentage of high school students who felt it would be easy to obtain marijuana fell from 71 percent in 2004 to 63 percent in 2008.

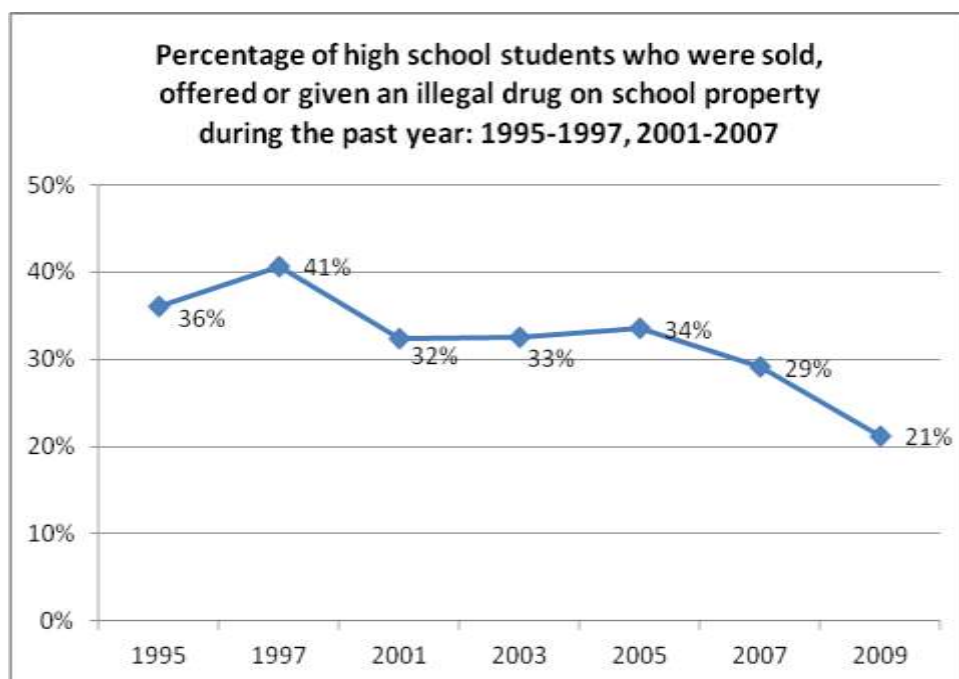


**Indicator Description: ILLEGAL DRUGS ON SCHOOL PROPERTY.** Percentage of high school students who were sold, offered or given an illegal drug on school property during the past year.

**Why Indicator is Important:** In 2009, students who reported they were offered drugs at school were nearly 3 times as likely to use marijuana as their peers who were not offered drugs at school.

**Data Source(s):** YRBSS, 1995-2009

**Summary:** The percentage of high school students who were sold, offered or given an illegal drug on school property appears to be decreasing.



*Source: YRBSS 1995-2009*

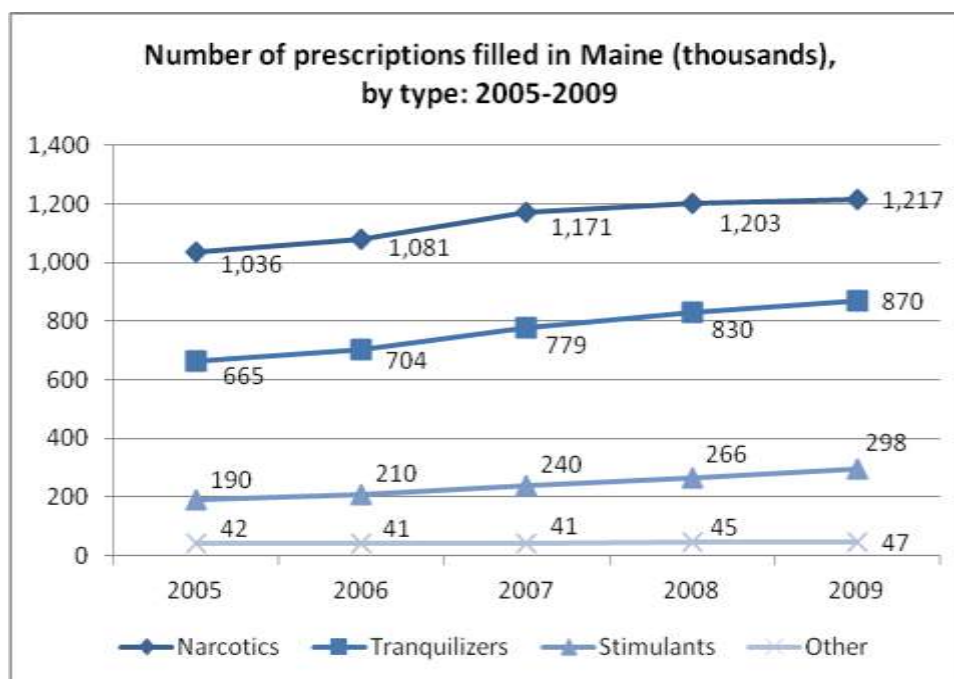
- The percentage of high school students who were sold, offered or given an illegal drug on school property during the previous year has decreased from a high of 41 percent in 1997 to a low of 21 percent in 2009.

**Indicator Description: NUMBER OF SCHEDULE II PRESCRIPTIONS FILLED.** This indicator reflects the number of narcotic, tranquilizer, stimulant, and other prescriptions filled in Maine and the average number of days' supply of each. This includes only prescription drugs that are classified "Schedule II" drugs, meaning those with a high potential for abuse. It is important to note that the number of prescriptions and the average number of days does not indicate the overall number of pills prescribed, or the size/dosage of the pills. All pharmacies in Maine report to the Prescription Monitoring Program.

**Why Indicator is Important:** The number of prescriptions filled and the average number of days' supply for each prescription indicate the volume of prescription pills potentially available in the community for diversion (e.g., gift, sale, or theft). A higher level of availability contributes to misuse by individuals without a prescription.

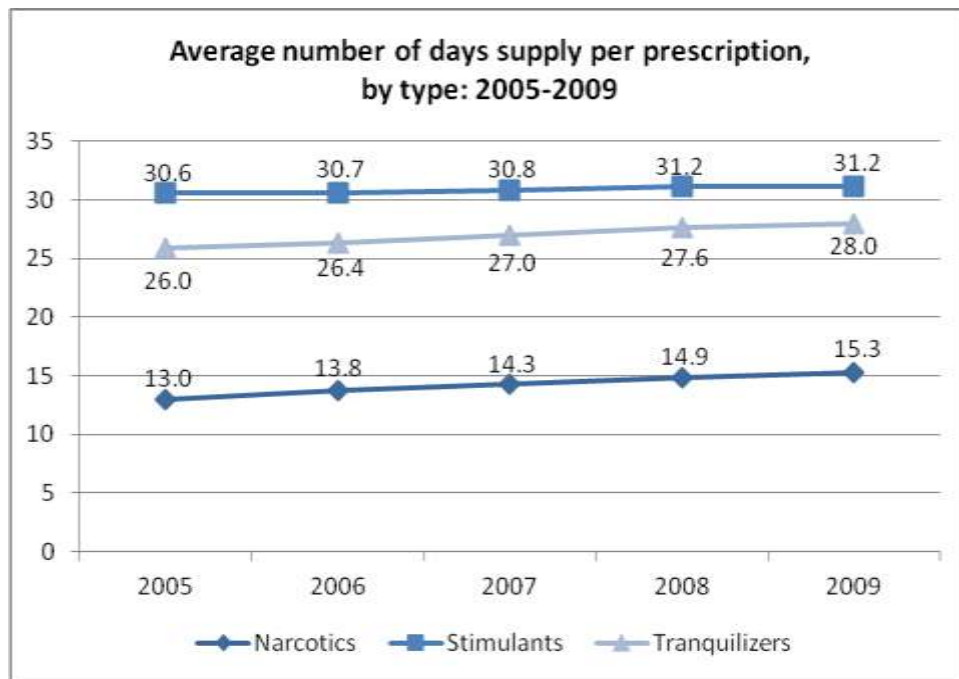
**Data Source(s):** PMP, 2005-2009

**Summary:** Narcotics accounted for most prescriptions filled in Maine. Between 2005 and 2009, the average number of days supply per prescription increased for both tranquilizers and narcotics.



Source: PMP 2005-2009

- Narcotics accounted for most prescriptions filled in Maine between the years of 2005 to 2009. This was followed by tranquilizers and, at a much lower number, stimulants. Each of these three categories showed an increase in the number of prescriptions filled during this time period. Other prescriptions made up a small number of the prescriptions filled in Maine during those years and has remained constant.



Source: PMP 2005-2009.

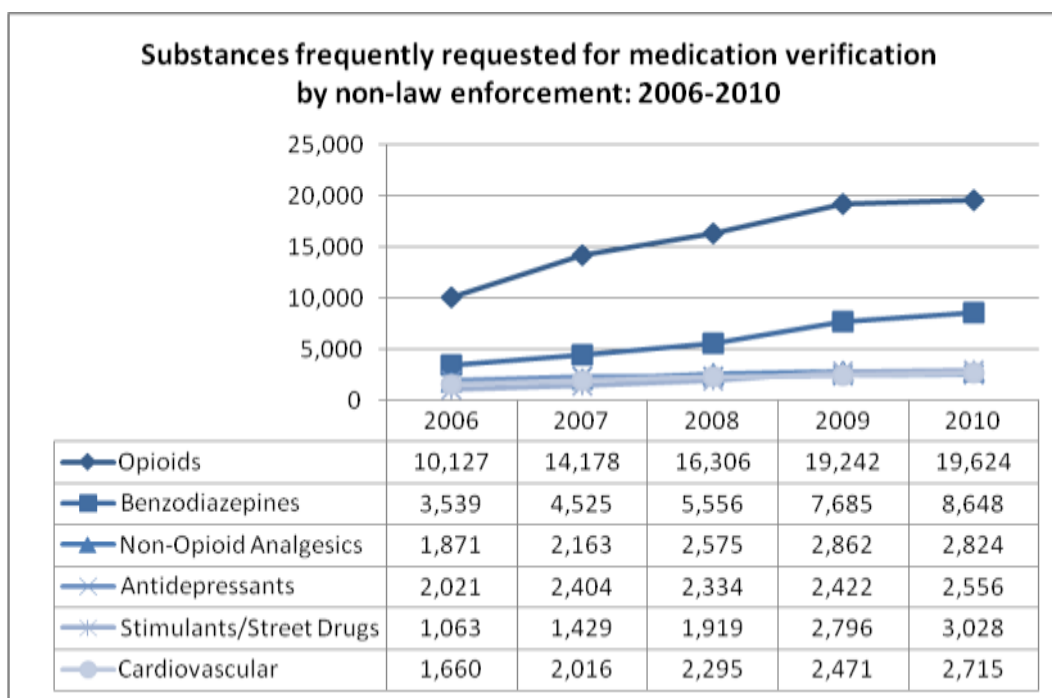
- The average number of days supply per prescription increased for both tranquilizers (from 26 days in 2005 to 28 in 2009) and narcotics (from 13 days in 2005 to 15 days in 2009). Stimulants remained the same, with the average number of days supply being 31 each year from 2005 to 2009.

**Indicator Description: SUBSTANCES REQUESTED FOR VERIFICATION.** This indicator shows the number of requests by non-law enforcement for medication verification through the Northern New England Poison Center for opioids, benzodiazepines, analgesics, antidepressants, stimulants, and cardiovascular medications. A person may call the NNEPC for many reasons, one being to help identify a medication or substance which another person has consumed or that has been found. The calls reflected in this indicator have been characterized by NNEPC as likely related to substance abuse, although NNEPC staff do not make a formal or clinical assessment.

**Why Indicator is Important:** There are two implications related to the increased volume of medication verification calls that are of interest here. First, this suggests a greater availability of those drugs in the community. Second, it suggests that there is a higher awareness among the community and parents for potential misuse of prescription pills which is prompting calls.

**Data Source(s):** NNEPC, 2006-2010

**Summary:** Most calls to NNEPC which were requesting verification for substances involved opioids, followed by benzodiazepines. The overall number of requests has increased since 2006.



*Source: NNEPC, 2006-2010*

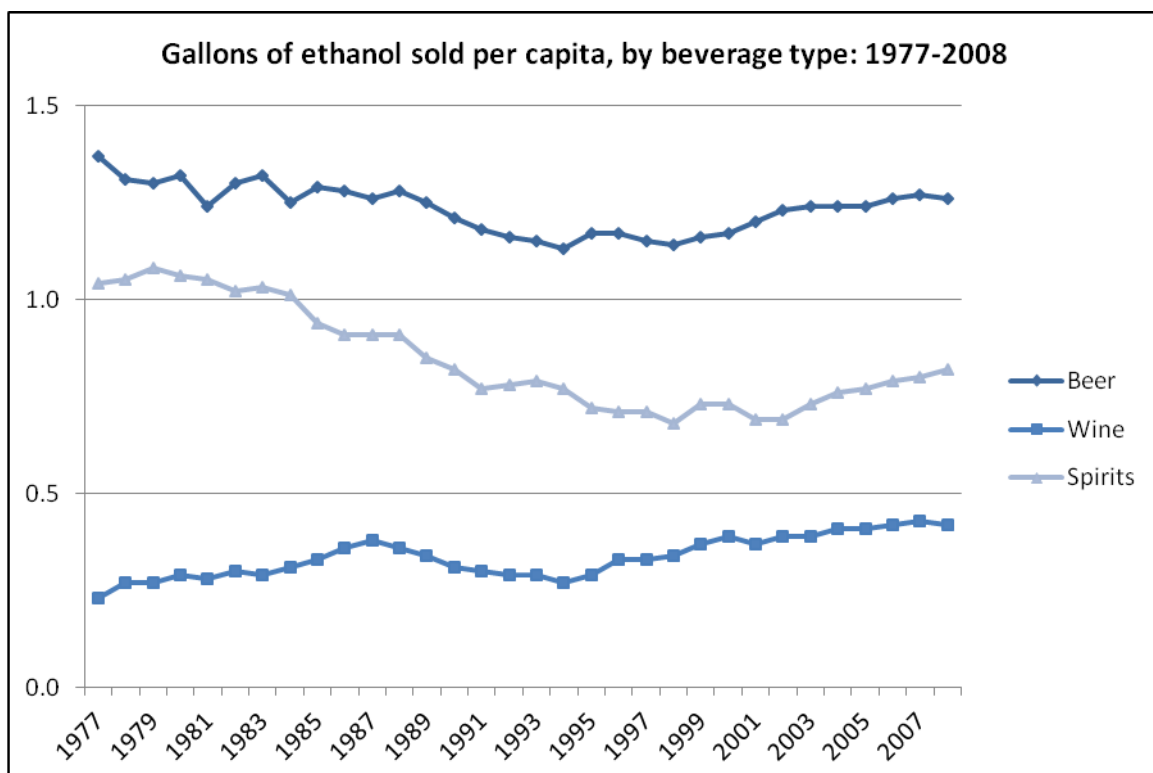
- In 2010, the Northern New England Poison Center received 19,624 calls requesting verification for substances that were identified as opioids. This is more than twice the number of verification calls that related to benzodiazepines, which was the second most requested drug type at 8,648. The volume of calls for both these substances has been increasing steadily since 2006.

**Indicator Description: ANNUAL GALLONS OF ETHANOL SOLD PER CAPITA.** This indicator captures the total sales of ethanol in beer, wine, and spirits per year, estimated in gallons of ethanol, per capita. Measuring ethanol takes into account the range of alcohol content per volume.

**Why Indicator is Important:** A higher quantity of alcohol and alcoholic beverages available in the community presents greater opportunity for use, abuse, and dependence. Per capita consumption of absolute alcohol has been used historically as an indicator of overall drinking within a state and has been shown to be correlated with many types of alcohol problems.

**Data Source(s):** AEDS, 1977-2008

**Summary:** Most alcohol in Maine is sold as beer, followed by spirits and then wine. This has not changed since 1977.



*Source: AEDS, 1977-2008*

- Since 1977, gallons of beer purchased per capita has dropped somewhat from 1.37 to 1.26. Gallons of spirits purchased per capita, however, has dropped significantly more than that from 1.04 to 0.82. During this same period, gallons of wine purchased per capita has increased from 0.23 to 0.42.

## Perceived Harm

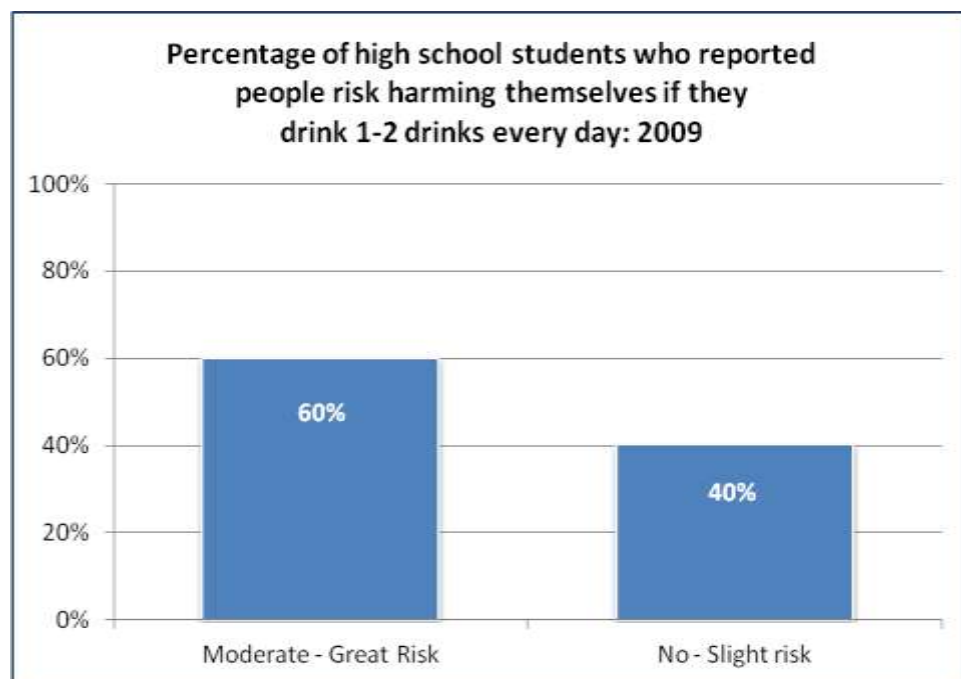
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**Indicator Description: PERCEIVED RISK FROM REGULAR ALCOHOL USE.** This indicator reflects the percentage of high school students who report that there is moderate to great risk of harm from drinking one or two alcoholic beverages every day.

**Why Indicator is Important:** High school students are nearly half as likely to drink when they perceive regular alcohol use as presenting a moderate to great risk of harm.

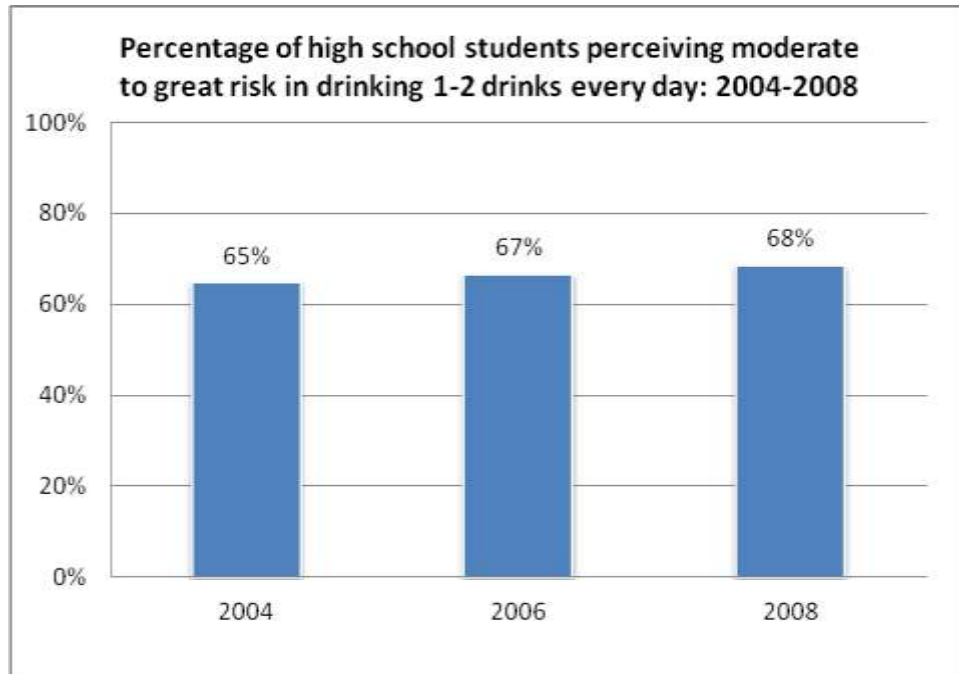
**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008

**Summary:** Although most high students think there is moderate to great risk of harm from drinking alcohol regularly, two out of five students in 2009 did not think regular use was risky.



*Source: MYDAUS 2004-2008*

- In 2009, three out of five students (60%) reported that people risk harming themselves if they drink one or two drinks every day, compared to 40 percent who felt there was little to no risk.



*Source: MYDAUS 2004-2008*

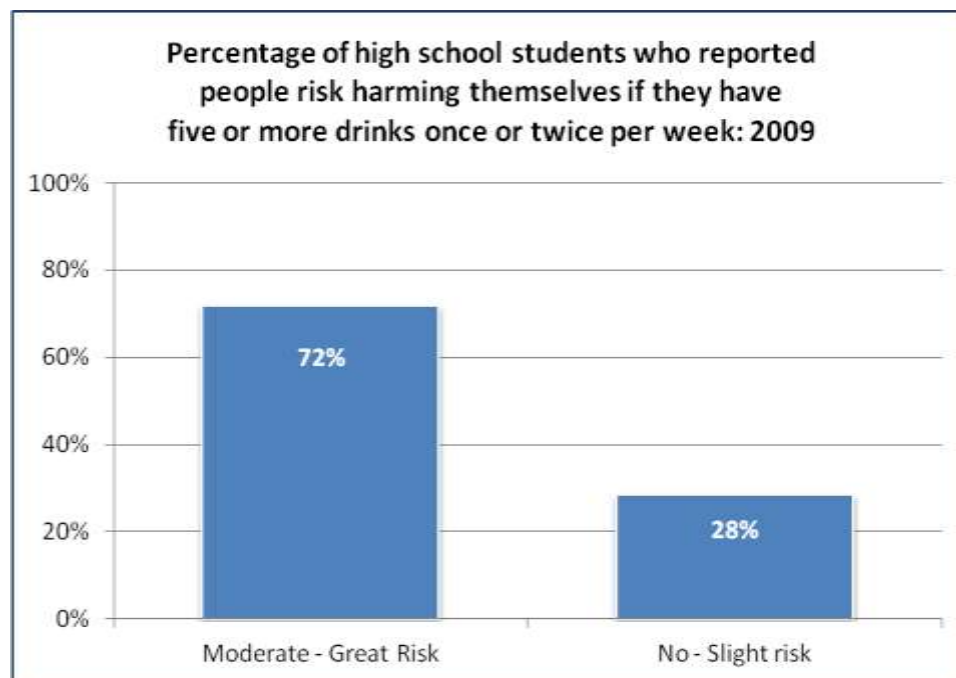
- The percentage of high school students who reported a perceived moderate to great risk from drinking one or two alcoholic beverages every day rose from 65 percent in 2004 to 68 percent in 2008.

**Indicator Description: PERCEIVED RISK FROM BINGE DRINKING.** This indicator reflects the percentage of individuals who perceive that there is moderate to great risk from drinking five or more drinks once or twice per week.

**Why Indicator is Important:** High school students are nearly half as likely to drink when they perceive binge alcohol use as presenting a moderate to great risk of harm. Adults are also less likely to binge drink if they perceive it to be risky.

**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008; NSDUH, 2002-03 to 2007-08

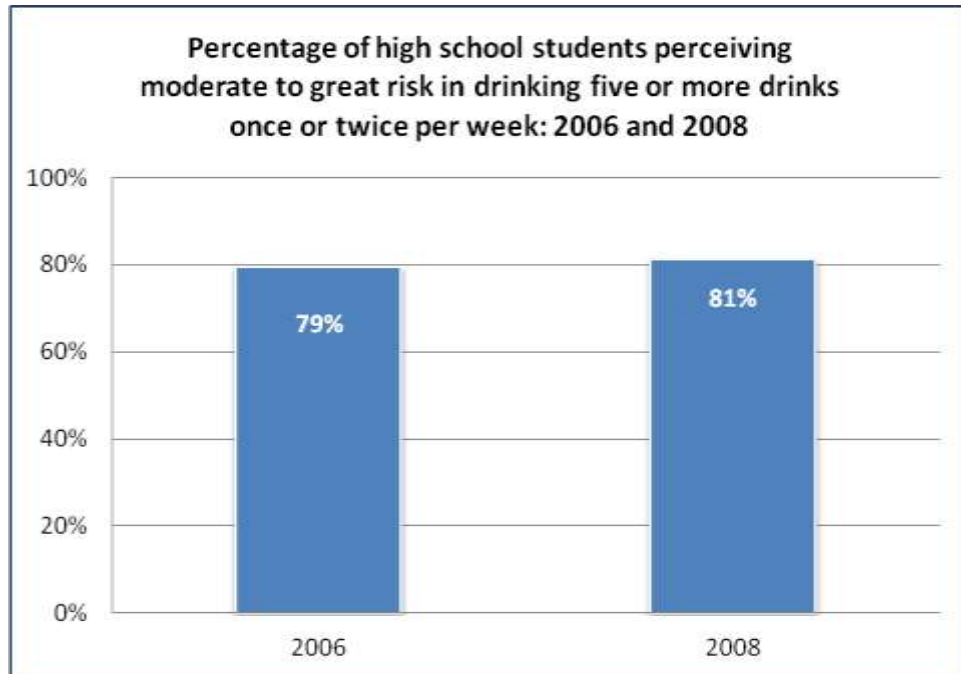
**Summary:** While three-fourths of high school students thought that binge drinking a few times a week posed a moderate to great risk of harm, only one in four young adults thought that binge drinking a few times a week was risky.



*Source: MIYHS 2009*

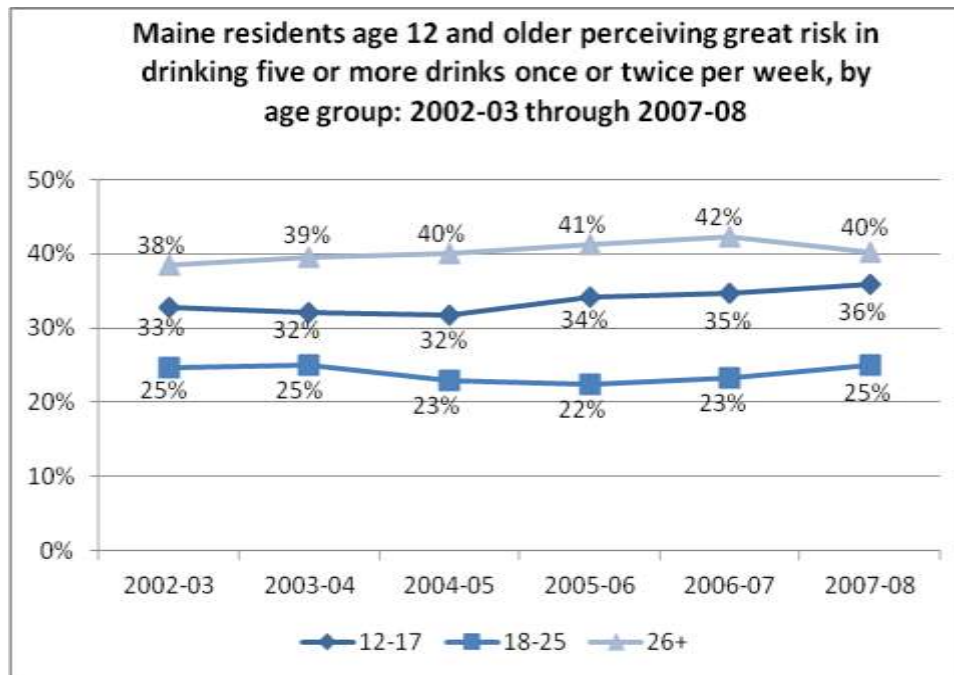
- In 2009, 72 percent of high school students (almost three out of four) reported that people risk harming themselves if they consume five or more alcoholic drinks once or twice a week, as compared to 28 percent who felt there was little to no risk.





*Source: MYDAUS 2006 and 2008*

- In 2008, 81 percent of high school students perceived a moderate to great risk in drinking five or more alcoholic drinks once or twice per week, up from 79 percent in 2006.



Source: NDUSH 2002-03 to 2007-08

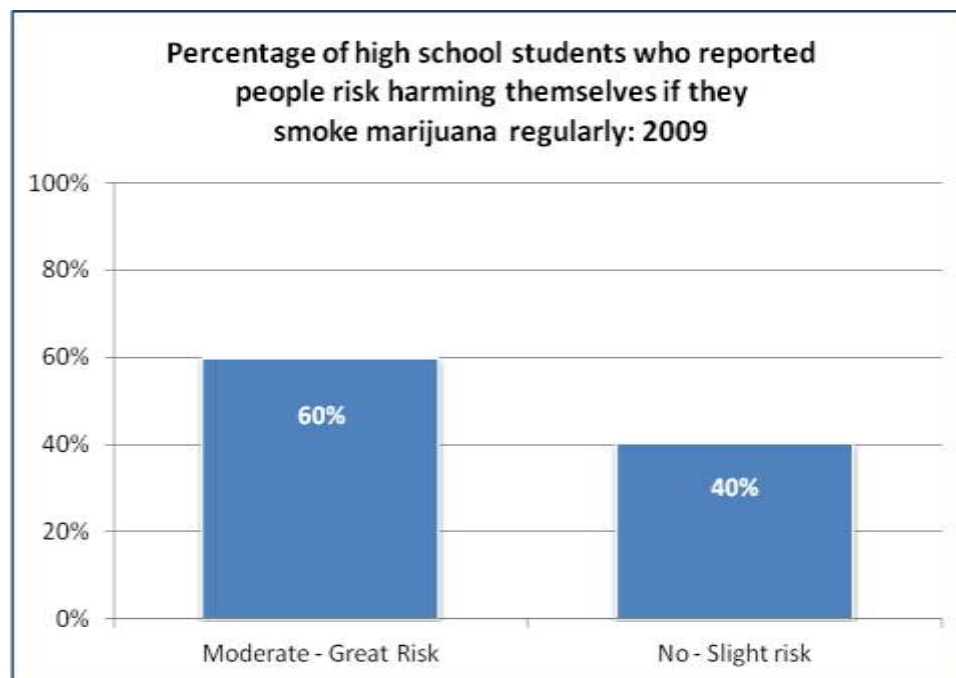
- In 2007-08, 40 percent of Mainers ages 26 and up reported that drinking five or more drinks once or twice per week posed some risk of harm. Young adults ages 18 to 25 year olds were much less likely to perceive a great risk of harm from drinking five or more drinks once or twice a week, at 25 percent in 2007-08. These trends have remained generally the same since 2002-03.

**Indicator Description: PERCEIVED RISK OF REGULAR MARIJUANA USE.** This measure demonstrates the percentage of individuals who perceive a moderate to great risk of harm from smoking marijuana regularly.

**Why Indicator is Important:** High school students who believe there is moderate to great risk in smoking marijuana regularly are one-fifth as likely to smoke marijuana as their peers.

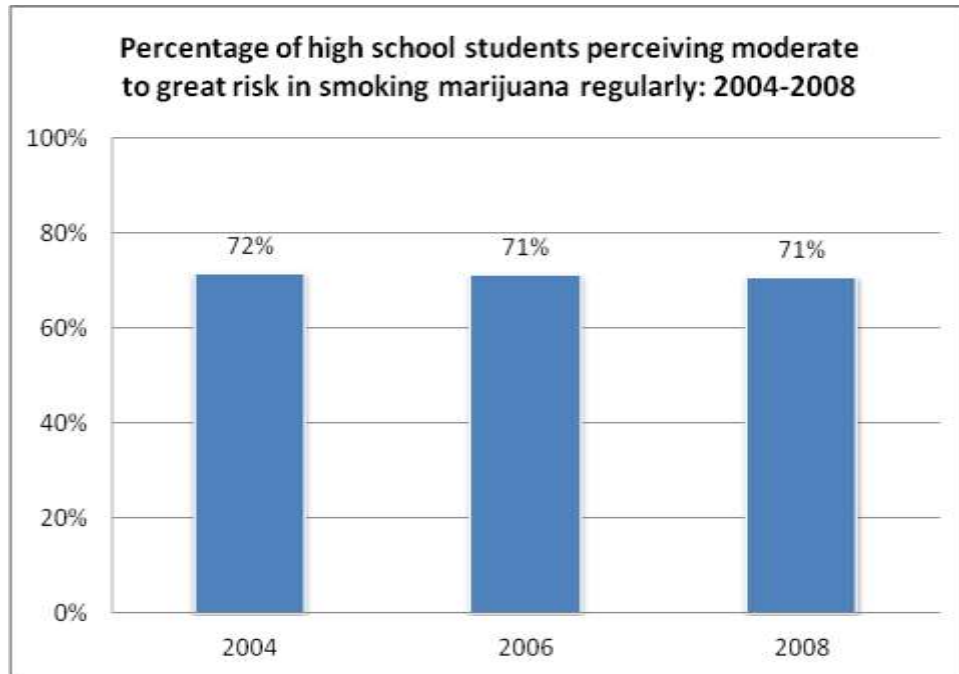
**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008; NSDUH, 2002-03 to 2007-08

**Summary:** Although most high students think there is moderate to great risk of harm from smoking marijuana regularly, two out of five students in 2009 did not think regular use was risky. Among adults, those between 18 and 25 years of age were the least likely to view a great risk in smoking marijuana once per a month.



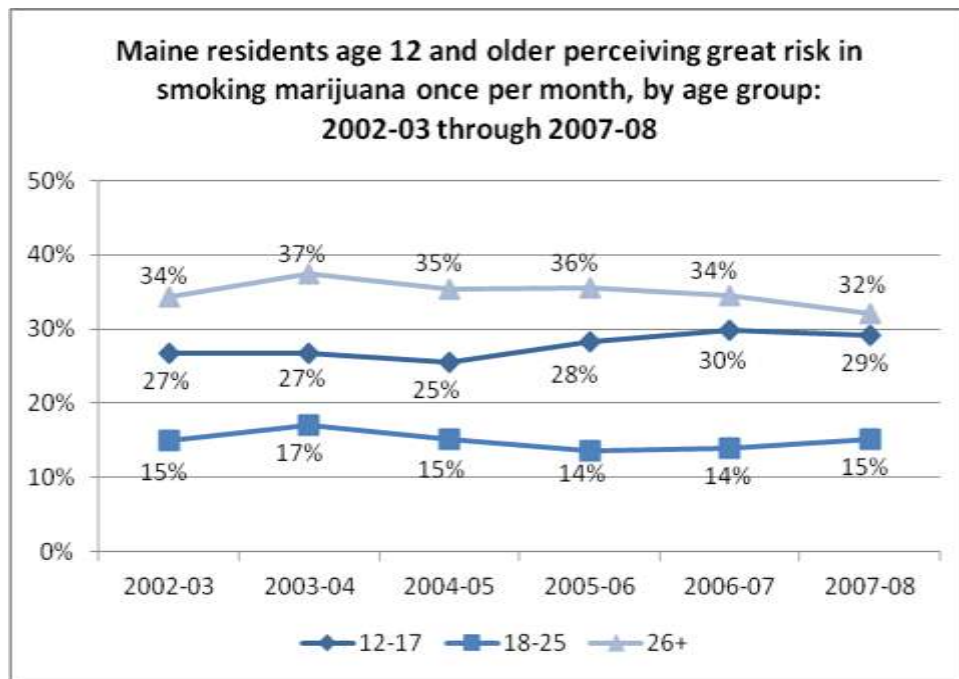
*Source: MIYHS 2009*

- In 2009, 60 percent of high school students reported a moderate to great risk of people harming themselves if they smoke marijuana regularly. Conversely, 40 percent felt that there was little to no risk of harm involved.



*Source: MYDAUS 2004-2008*

- The percentage of high school students who perceived a moderate to great risk in smoking marijuana regularly remained steady at 71 percent from 2004 to 2008.



Source: NDUSH 2002-03 to 2007-08

- In 2009, young adults between the ages of 18 to 25 year old were the least likely to view a great risk in smoking marijuana once per a month at 15 percent in 2007-08, compared to 32 percent for Mainers who were 26 years old or older. For those ages 26 and older, the percentage has decreased from 37 percent in 2003-04 to 32 percent in 2007-08.

## Perceived Enforcement

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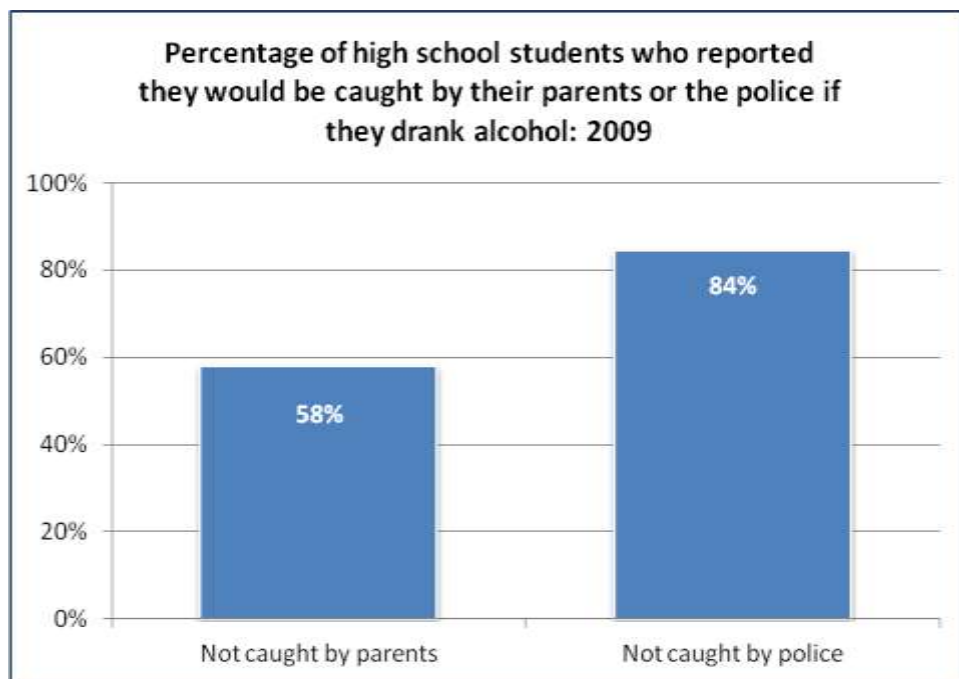
**Indicator Description: YOUTH PERCEIVED RISK OF BEING CAUGHT FOR DRINKING ALCOHOL.**

The percentage of high school students perceiving they would be caught by their parents and by police if they drank alcohol.

**Why Indicator is Important:** High school students who believe they would be caught by their parents or the police are less likely to drink alcohol than their peers.

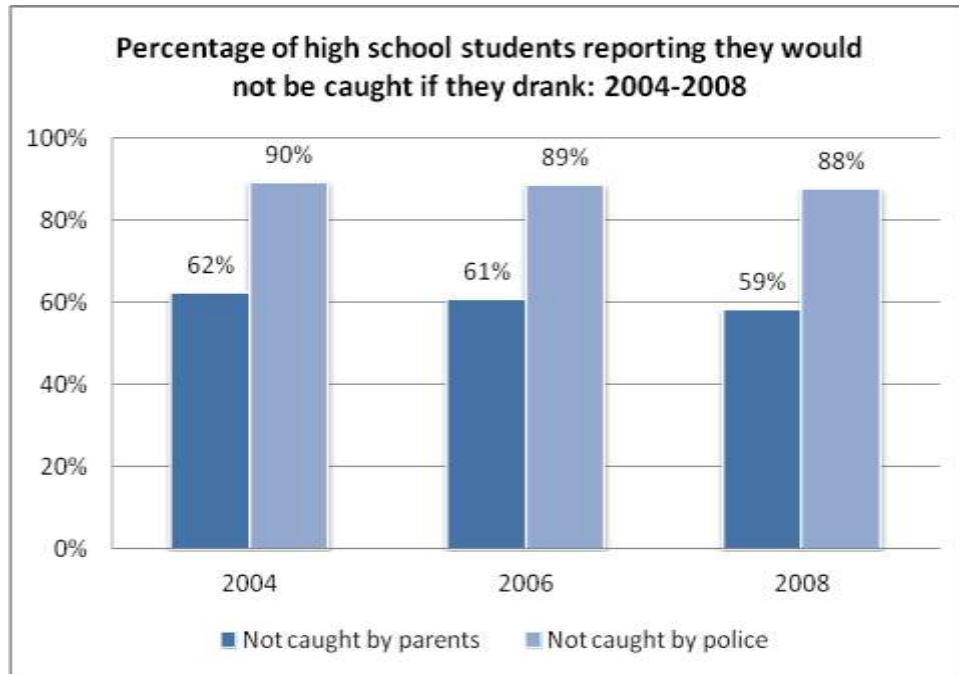
**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008

**Summary:** High school students think they are more likely to be caught by their parents for drinking alcohol than by the police.



Source: MIYHS 2009

- In 2009, 58 percent of students reported that they did not think they would be caught by their parents for drinking alcohol, and 84 percent reported that kid would not be caught by the police if they drank alcohol.



*Source: MYDAUS 2004-2008*

- High school students consistently felt they would not be caught by their parents or the police if they drank alcohol. In 2004, 90 percent of students felt they would not be caught by the police if they drank alcohol which fell only slightly to 88 percent in 2008. Similarly, 62 percent of high school students felt they would not be caught by their parents in 2004, falling to 59 percent in 2008.

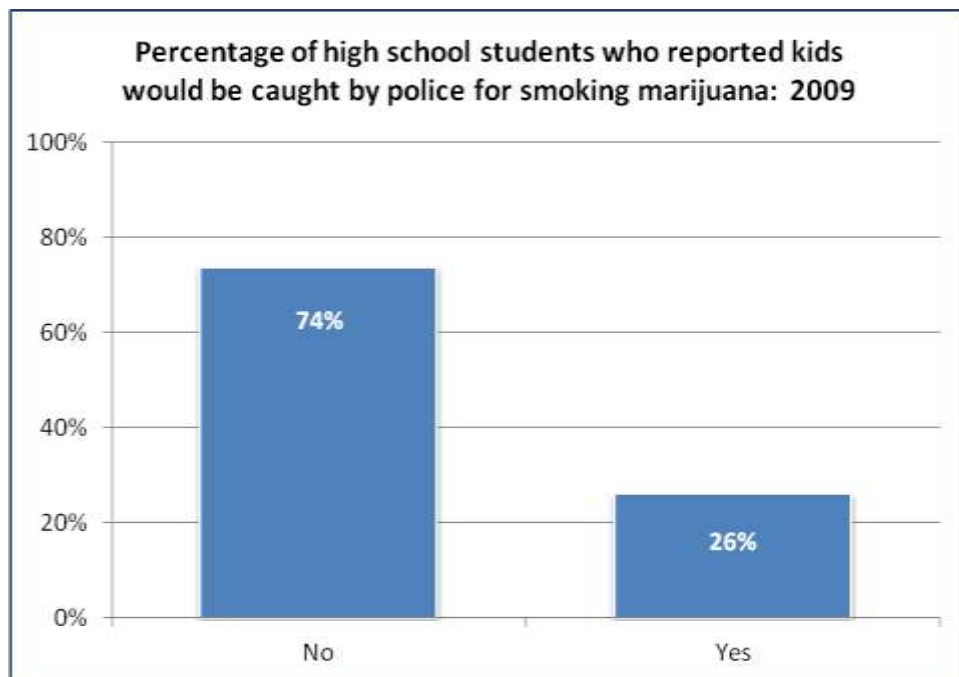
**Indicator Description: YOUTH PERCEIVED RISK OF BEING CAUGHT FOR SMOKING MARIJUANA.**

The percentage of high school students perceiving they would be caught by police if they smoked marijuana.

**Why Indicator is Important:** High school students who believe they would be caught by the police are less than half as likely to smoke marijuana as their peers.

**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008

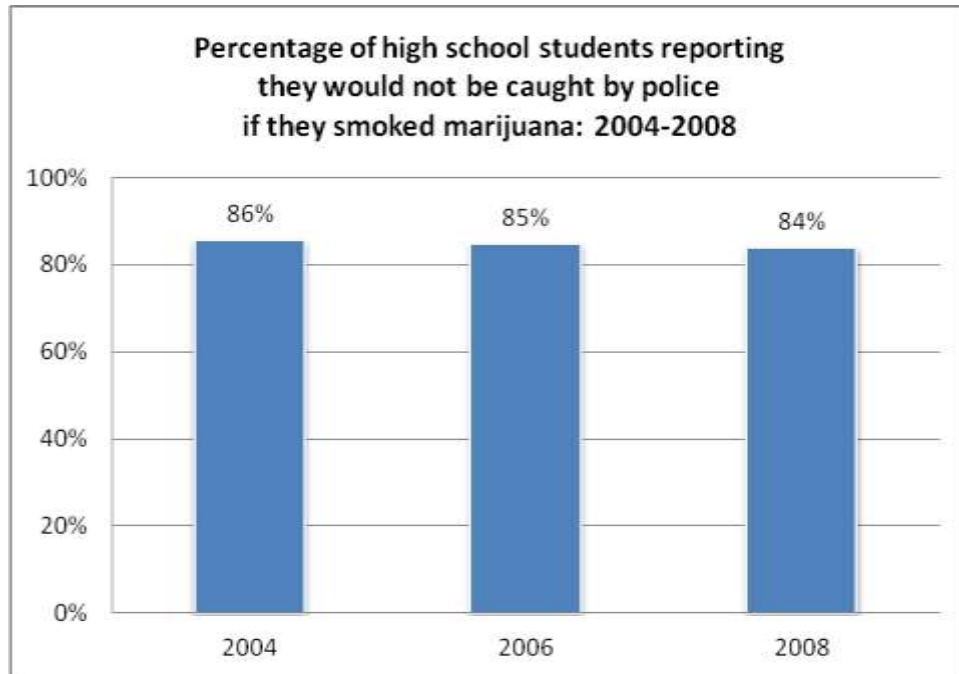
**Summary:** High school students do not think they will be caught by police for smoking marijuana.



Source: MIYHS 2009

- In 2009, three quarters of high school students (74%) felt kids would not be caught by police for smoking marijuana, whereas 26 percent felt kids would be caught.





*Source: MYDAUS 2004-2008*

- Between 2004 and 2008 there was a slight decline in the percentage of students who reported they would not be caught by police if they smoked marijuana, from 86 percent in 2004 down to 84 percent in 2008.

## Community and Cultural Norms

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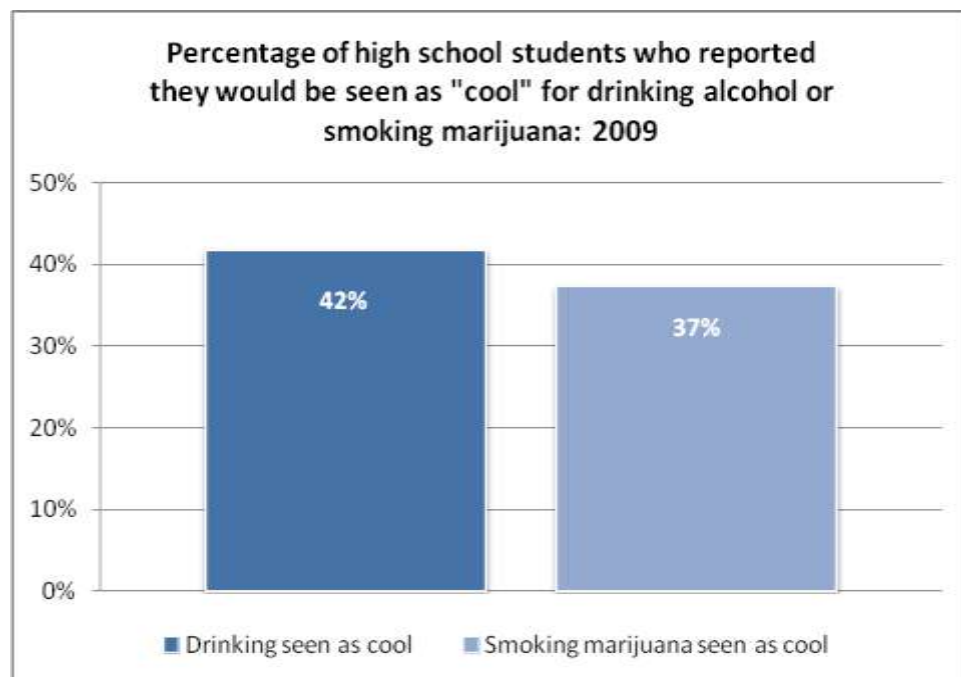
**Indicator Description: YOUTH PERCEPTION OF PEER ATTITUDES TOWARD SUBSTANCE USE.**

This measure reflects the percentage of high school students perceiving that they would be seen as cool if they began drinking alcohol or smoking marijuana.

**Why Indicator is Important:** High school students who believe they would be seen as cool are more likely to engage in drinking and marijuana use than their peers.

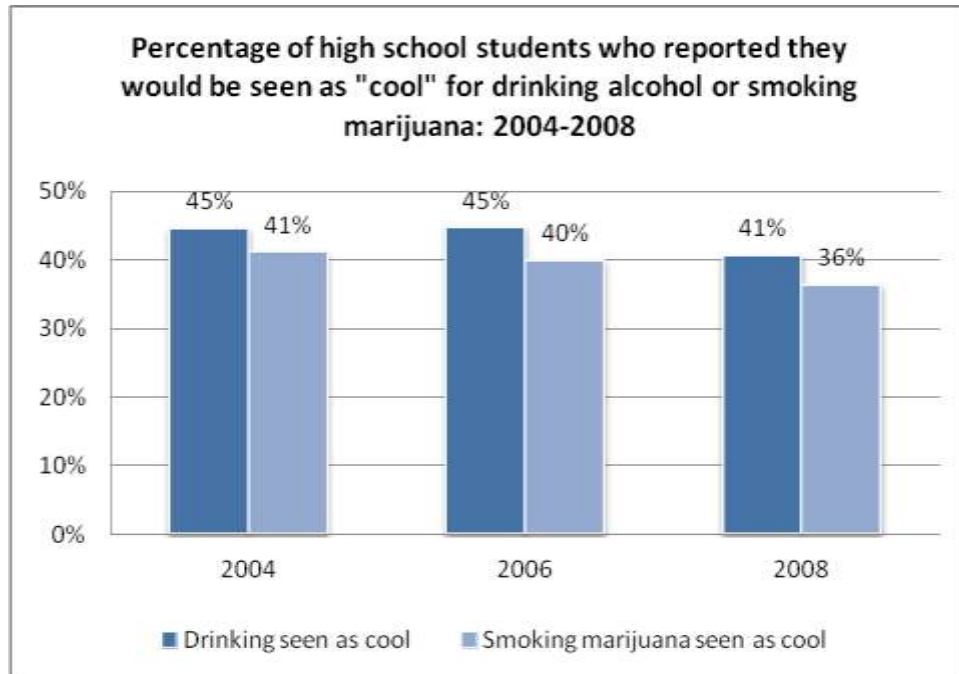
**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008

**Summary:** Although less than half of all high school students think that alcohol use and marijuana use would be seen as “cool” by their peers, about two in five continue to think that using substances would be seen as cool.



Source: MIYHS 2009

- In 2009, 42 percent of high school students reported the belief that their peers saw drinking alcohol as “cool.” Thirty-seven percent reported the belief that smoking marijuana would be seen as “cool” by their peers.



Source: MYDAUS 2004-2008

- Between 2004 and 2008, the percentage of students who saw drinking alcohol and smoking marijuana as “cool” decreased. In 2004, 45 percent of students felt their peers saw drinking as cool, falling to 41 percent in 2008. Forty-one percent of high school students felt their peers saw smoking marijuana as “cool” in 2004, decreasing to 36 percent in 2008.

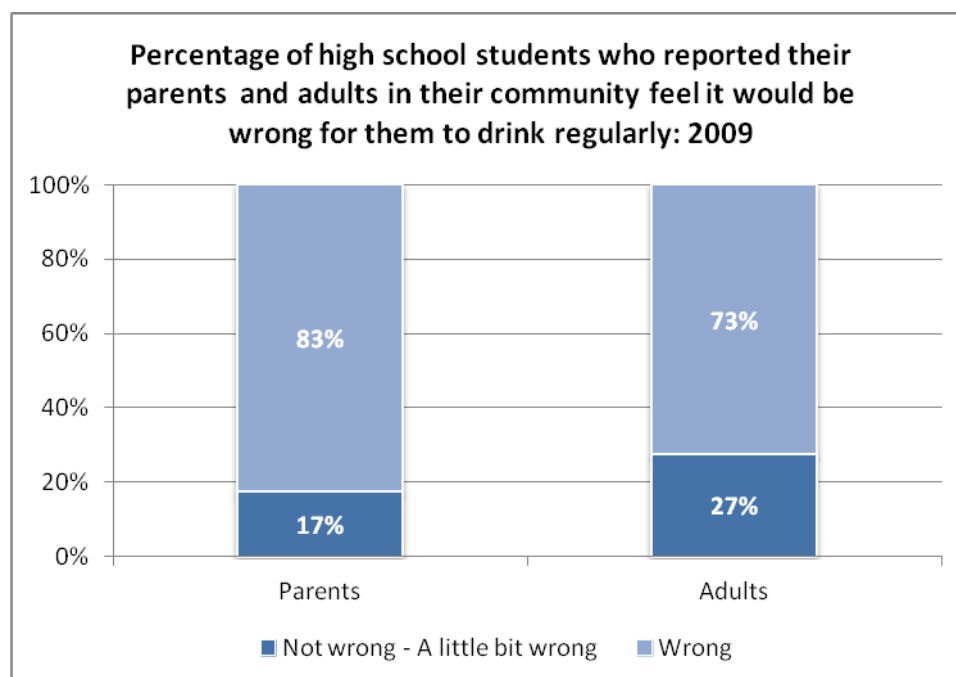
**Indicator Description: YOUTH PERCEPTION OF ADULT ATTITUDES TOWARD ALCOHOL USE.**

This indicator depicts the percentage of high school students who thought that their parents feel it would be wrong for them to drink. It also examines the proportion who reported that adults in their community think it would be wrong for kids their age to consume alcohol.

**Why Indicator is Important:** High school students who believe adults feel it would be wrong for them to drink are half as likely to drink alcohol as their peers.

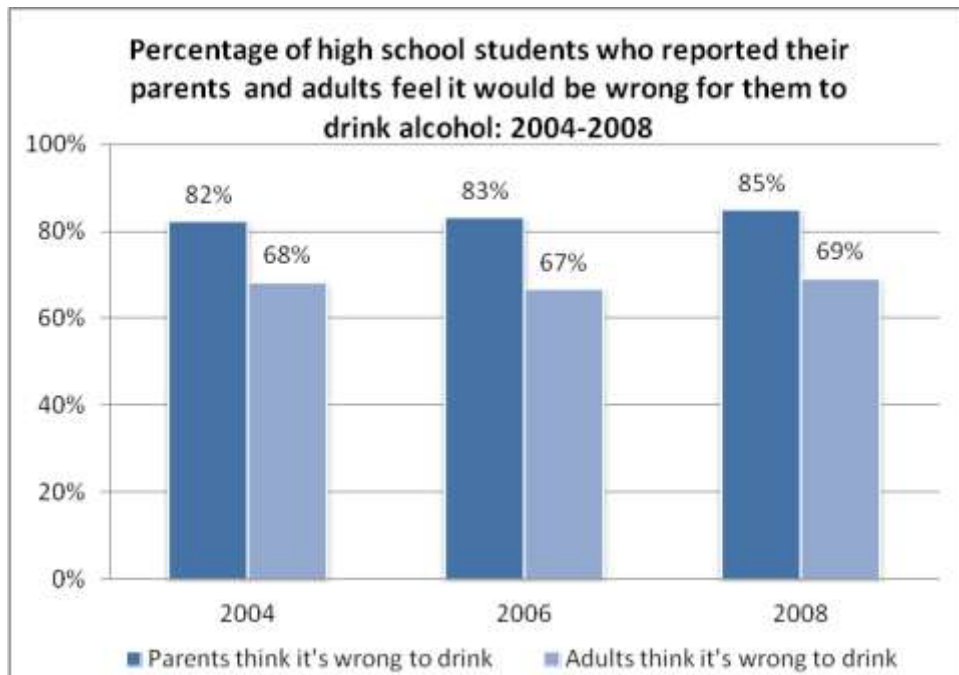
**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008

**Summary:** High school students generally believe that their parents and adults in their community think it would be wrong for them to drink alcohol.



*Source: MIYHS 2009*

- In 2009, the majority of high school students reported that their parents thought it would be wrong for them to drink (83%). Slightly fewer (73%) thought that adults in their neighborhood would think it was wrong for kids their age to drink.



*Source: MYDAUS 2004-2008*

- Rising from 82 percent in 2004 to 85 percent in 2008, students generally reported believing that their parents felt it was wrong for them to drink. Students were somewhat less likely to think that adults in the community thought it was wrong for kids their age to drink alcohol (69% in 2008), a trend that changed little between 2004 and 2008.

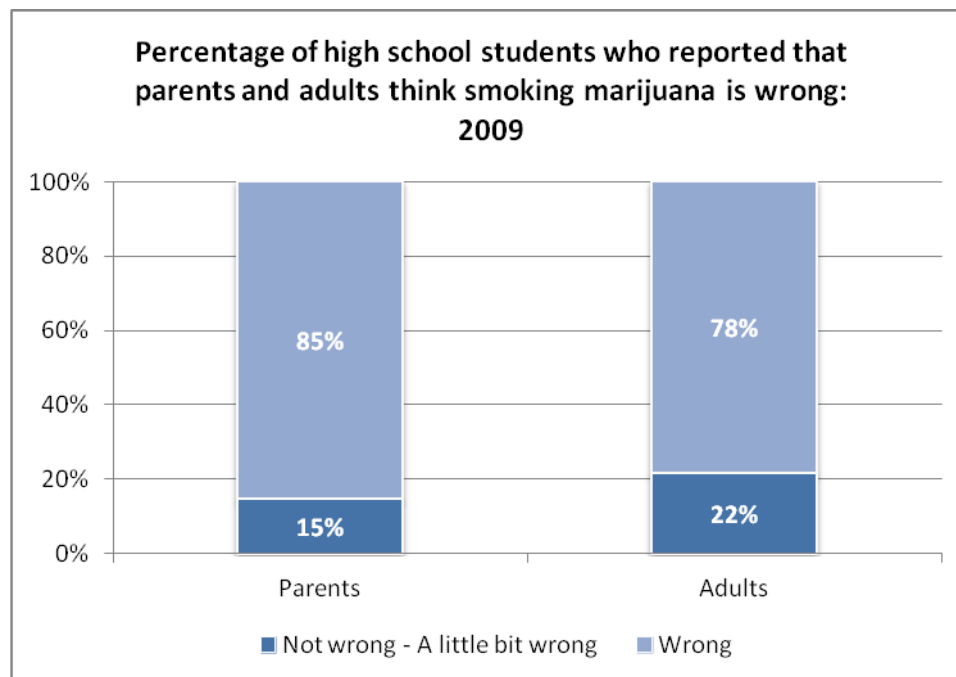
**Indicator Description: YOUTH PERCEPTION OF ADULT ATTITUDES TOWARD MARIJUANA USE.**

This indicator shows the percentage of high school students who reported that their parents feel it would be wrong for them to smoke marijuana. It also examines the proportion who reported that they thought adults in their neighborhood feel it would be wrong for kids their age to smoke marijuana.

**Why Indicator is Important:** High school students who believe their parents feel it is wrong for them to smoke marijuana are one quarter as likely to use marijuana as their peers. Students who believe adults in their neighborhood think it is wrong for kids to use marijuana are one third as likely to use it as their peers.

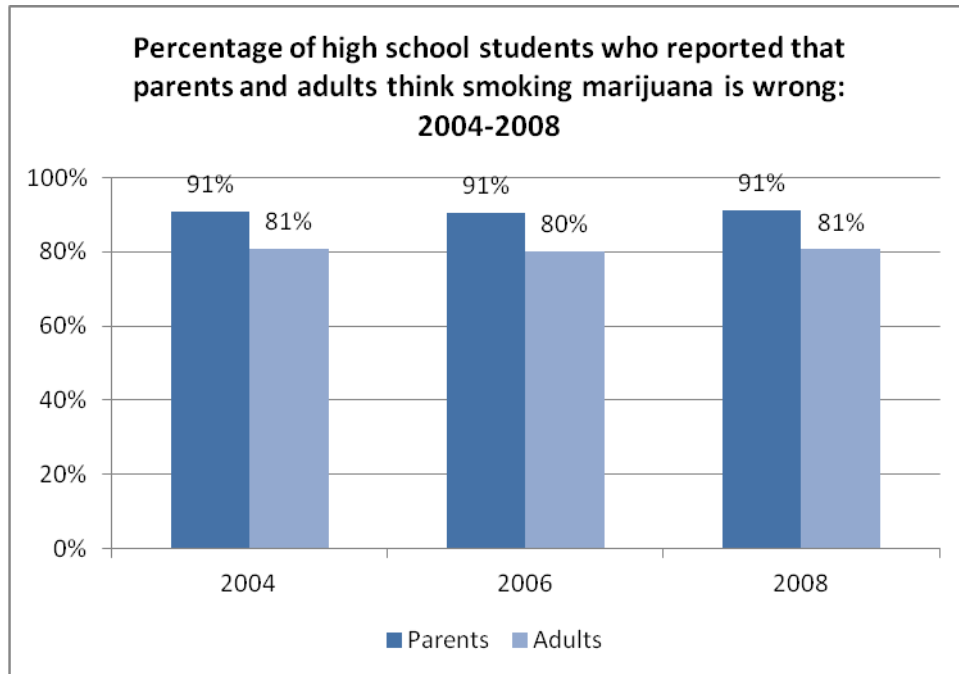
**Data Source(s):** MIYHS, 2009; MYDAUS 2004-2008

**Summary:** High school students generally believe that their parents and adults in their community think it would be wrong for them to smoke marijuana.



*Source: MIYHS 2009*

- In 2009, 85 percent of high school students reported their parents feel it would be wrong for them to smoke marijuana. The majority (78%) also reported that adults in their neighborhood thought it was wrong for kids their age to use marijuana.



*Source: MYDAUS 2004-2008*

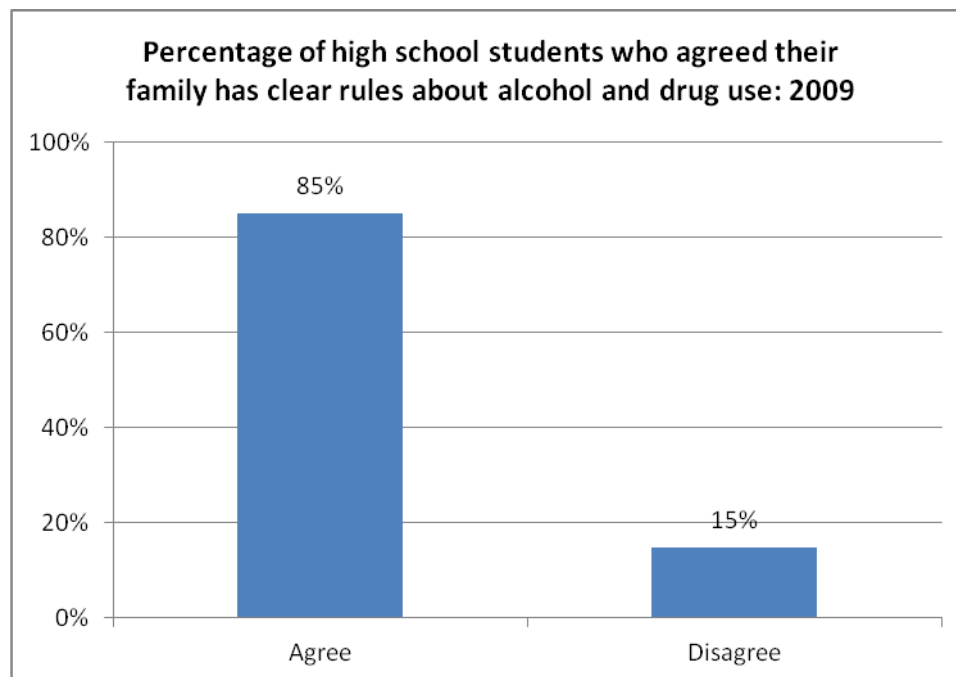
- Ninety-one percent of high school students reported the belief that their parents thought it was wrong for them to smoke marijuana, a figure that remained constant from 2004 to 2008. Similarly, around 81 percent thought that adults in the community thought it was wrong for kids to smoke marijuana.

**Indicator Description: YOUTH PERCEPTION OF FAMILY RULES TOWARD SUBSTANCE USE.** This indicator reflects the percentage of high school students who reported that their family has clear rules about substance use.

**Why Indicator is Important:** High school students who believe their parents have clear rules about substance use are half as likely as their peers to drink alcohol.

**Data Source(s):** MIYHS, 2009.

**Summary:** Most students in Maine report that their family has clear rules around alcohol and drug use.



*Source: MIYHS 2009*

- In 2009, 85 percent of high school students agreed their family has clear rules about alcohol and drug use. Fifteen percent disagreed. According to older MYDAUS data (not shown), this has been relatively stable at 80 percent since 2004.



## **Mental Health, Suicide and Co-occurring Disorders**

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The relationship between substance use and mental health has been well documented. There are great efforts underway at the Substance Abuse Mental Health Services Administration (SAMHSA) and throughout Maine to better integrate mental health promotion and substance abuse prevention. At the individual level, it is important to know if one exists because the symptoms of each can affect the other; that is, a person who is depressed may abuse alcohol in an effort to feel better. At the community level, it is important to understand how the prevalence of one interacts with the other so that prevention and intervention efforts can better address the needs of both. Previous reports included one indicator that measured the incidence of co-occurring disorders among treatment admissions. The data indicators included below represent the first attempt to collect multiple mental health indicators that can be routinely monitored in relation to substance abuse in hopes that this will lead to better prevention and intervention.

About one-quarter of adults in Maine report having ever been diagnosed with depression. Young adults are more likely to report experiencing serious psychological distress in the past year than older adults (one in five). And about one in ten high school students considered or planned for suicide in 2009. Just under half of all substance abuse treatment admissions in 2010 also involved a mental health disorder and one quarter had received outpatient mental health services in the past year.

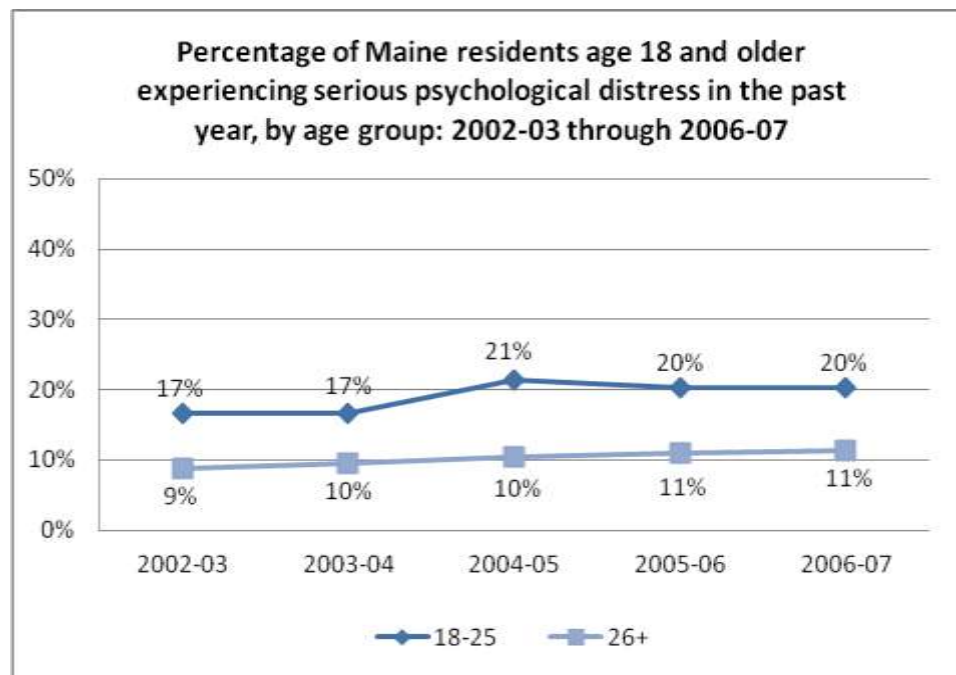
## Depression, Anxiety and Psychological Distress

**Indicator Description: PSYCHOLOGICAL DISTRESS AND DEPRESSIVE EPISODES AMONG ADULTS.** This indicator reflects the percentage of Maine residents age 18 and older reporting experiencing serious psychological distress in the past year or having experienced at least one major depressive episode.

**Why Indicator is Important:** Experiencing psychological distress in the past year is associated with higher rates of substance abuse.

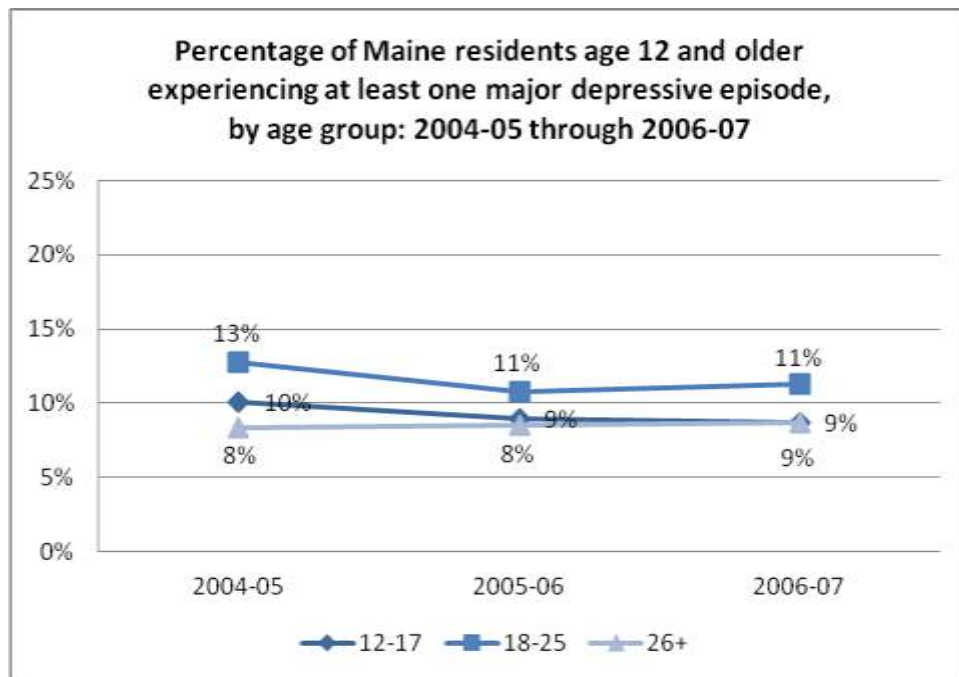
**Data Source(s):** NSDUH, 2002-03-2005-07.

**Summary:** Young adults are more likely to report experiencing serious psychological distress in the past year than older adults (one in five); they are also more likely than other age groups to experience a major depressive episode in the past year.



Source: NSDUH, 2002-03-2005-07

- Since 2002-03, a greater proportion of the adults have been reporting experiencing serious psychological distress in the past year since 2002-03. This has been higher among young adults ages 18 to 25; in 2006-07, approximately one in five young adults (20%) experienced serious psychological distress in the previous year, compared to 11 percent of adults ages 26 and older.



Source: NSDUH 2004-05 to 2006-07

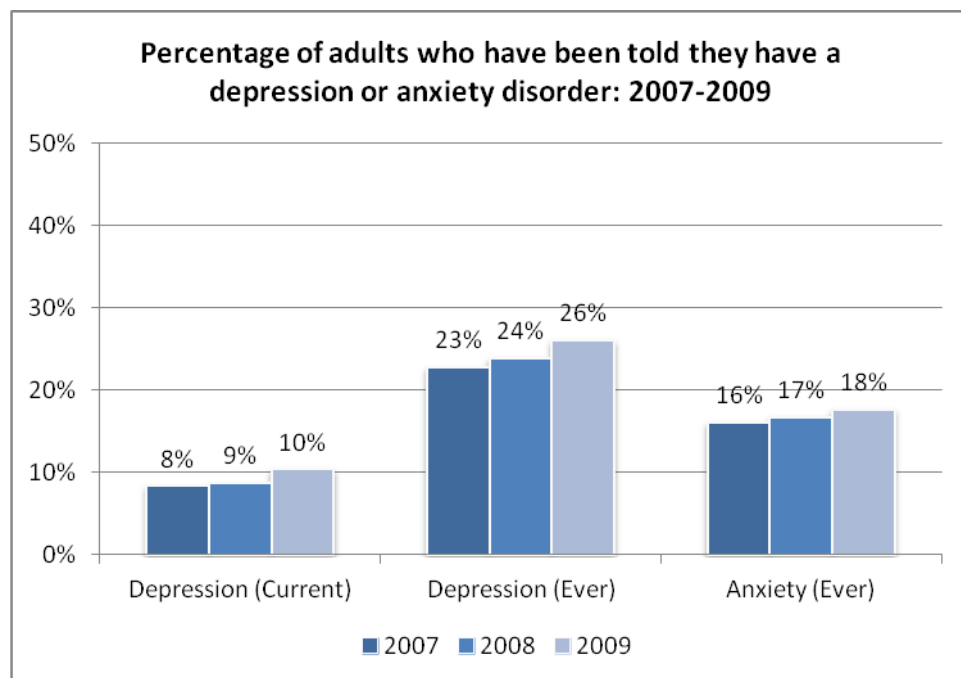
- In 2006-07, major depressive episodes were most prevalent among young adults ages 18 to 25 (11%) compared to other age groups (9% each). This remained stable between 2004-05 and 2006-07.

**Indicator Description: DIAGNOSIS OF ANXIETY AND DEPRESSION AMONG ADULTS.** This indicator examines the percentage of Maine residents age 18 and older who have been told they have a depression or anxiety disorder.

**Why Indicator is Important:** The link between mental health and substance abuse is well documented. Experiencing anxiety or depression in the past year is associated with higher rates of substance abuse.

**Data Source(s):** BRFSS, 2007-2009

**Summary:** About one-quarter of adults in Maine report having ever been diagnosed with depression.



*Source: BRFSS 2007-2009*

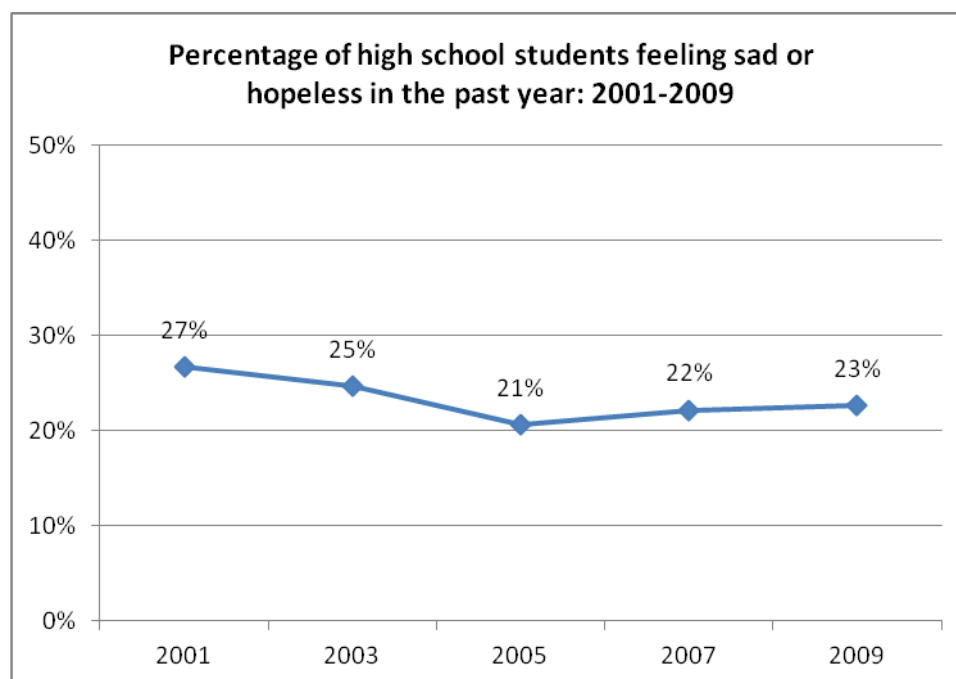
- More adults reported a diagnosis of depression than anxiety, with over one-quarter of adults in Maine reporting ever having been diagnosed with depression. The proportions of the population reporting current and lifetime depression and lifetime anxiety all increased very slightly (2 percentage points) between 2007 and 2009.

**Indicator Description: DEPRESSION AMONG YOUTH.** This indicator measures the percentage of high school students reporting they felt sad or hopeless almost every day for two weeks in a row during the past year.

**Why Indicator is Important:** Experiencing depression in the past year is associated with higher rates of substance abuse. Among youth, depression is also associated with problems with relationships and academic achievement.

**Data Source(s):** YRBSS, 2001-2009

**Summary:** About one-quarter of high school students have reported feeling sad or helpless during the past year.



*Source: YRBSS 2002-2009*

- Since 2001, about one-quarter of high school students have reported feeling so sad or helpless during the past year that they stopped doing some usual activities. This decreased between 2001 and 2005, from 27 percent to 21 percent, but has risen slightly to 23 percent in 2009.

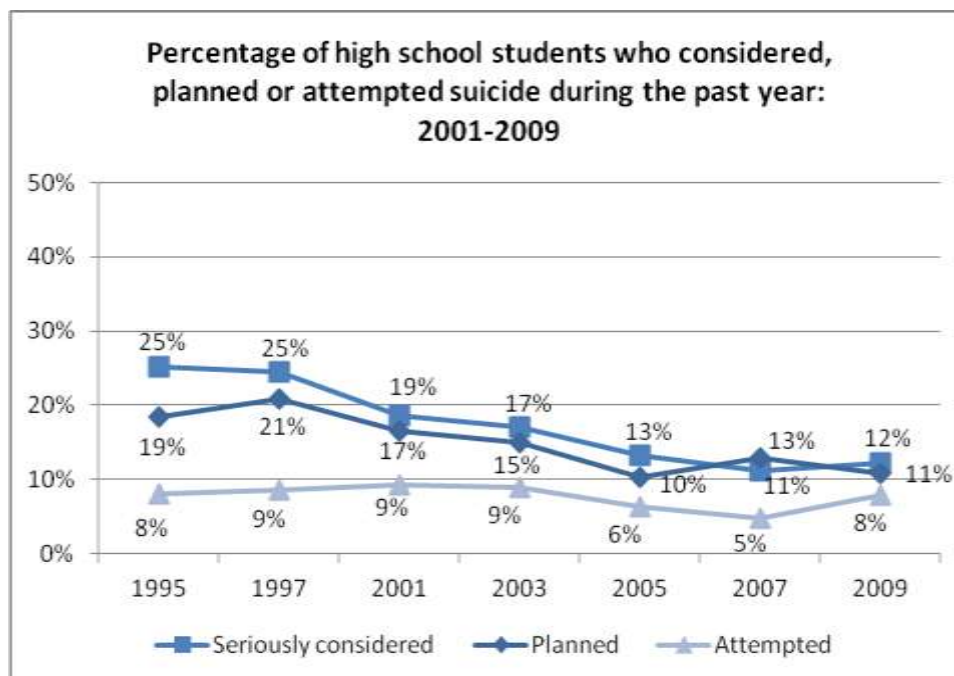
## Suicide and Suicidal Ideation

**Indicator Description: SUICIDAL IDEATION AMONG YOUTH.** This measure examines the percentage of high school students who reported that they seriously considered attempting suicide, made a plan about how they would attempt suicide, or attempted to commit suicide during the past year.

**Why Indicator is Important:** Suicide is the most tragic consequence of major depressive disorders. Abuse of alcohol or other drugs may increase emotional problems leading to suicidal ideation and suicidal behavior.

**Data Source(s):** YRBSS, 1995-2009

**Summary:** In 2009, about one in ten high school students considered or planned for suicide. This has been decreasing since 1995. The proportion reporting an actual suicide attempt in the past year is slightly lower.



Source: YRBSS, 1995-2009

- In 2009, 12 percent of high school students reported that they seriously considered suicide in the past year and 11 percent reported that they planned for it; 8 percent reported attempting suicide.
- The proportion of students who seriously considered or planned for suicide in the past year has decreased overall since 1995. The proportion of students who attempted suicide also decreased from 2003 to 2007 but increased slightly in 2009 to 8 percent.

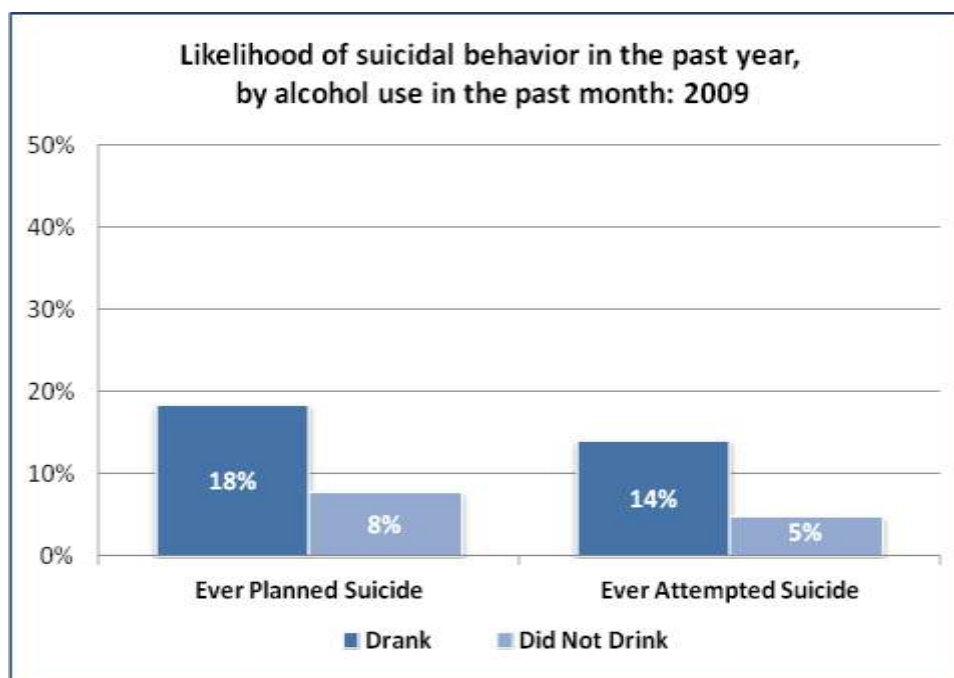
## Mental Health and Substance Abuse Co-Occurrence

**Indicator Description: CO-OCCURRING SUBSTANCE USE AND SUICIDAL BEHAVIOR AMONG YOUTH.** This indicator explores the relationship between alcohol use within the past 30 days and suicidal behavior. It reflects the likelihood of high school students to report that they planned or attempted suicide during the past year by whether they reported consuming alcohol in the past month.

**Why Indicator is Important:** The link between mental health and substance abuse is well documented. Alcohol is a depressant and its use by depressed individuals it may increase suicidal behavior.

**Data Source(s):** MIYHS, 2009

**Summary:** High school students who consumed alcohol in the past month were more than twice as likely to have attempted or planned suicide compared to those students who had not consumed alcohol.



Source: MIYHS 2009

- Eighteen percent of high school students who had consumed alcohol in the previous 30 days reported they had planned suicide and 14 percent reported that they attempted suicide in the past year. This compares to students who did not drink alcohol in the previous 30 days, where 8 percent were likely to have planned suicide and 5 percent were likely to have attempted suicide.

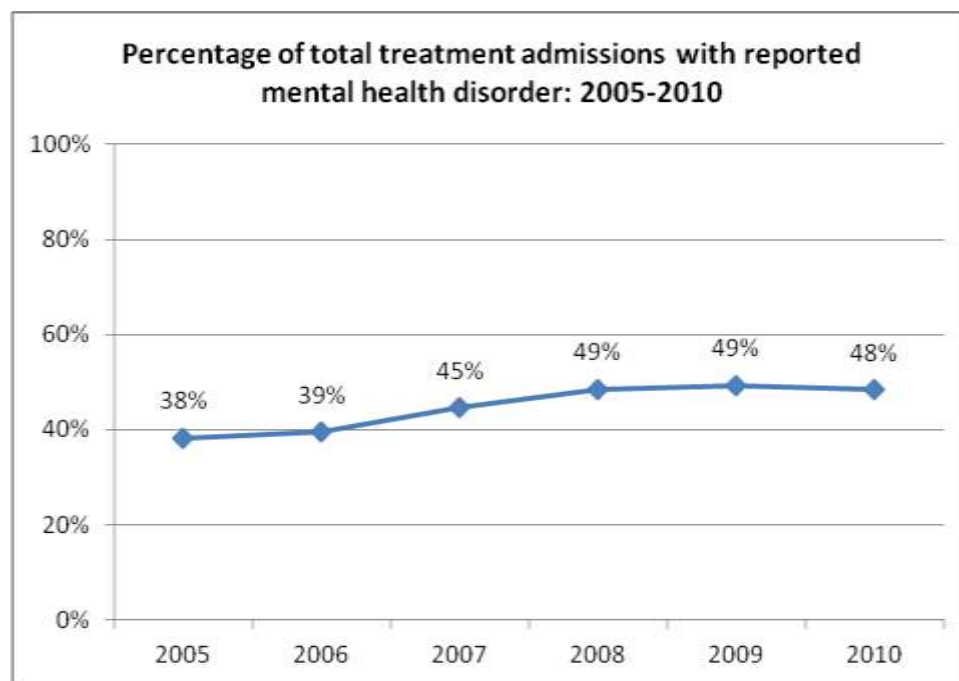
**Indicator Description: CO-OCCURRING MENTAL HEALTH AND SUBSTANCE ABUSE**

**TREATMENT.** This indicator reflects the proportion of treatment admissions for substance abuse where the individual has a mental health diagnosis or has previously received mental health services.

**Why Indicator is Important:** The link between mental health and substance abuse is well documented. In terms of treatment, it is important to know if one exists because the symptoms of each can affect the other.

**Data Source(s):** TDS 2005-2010.

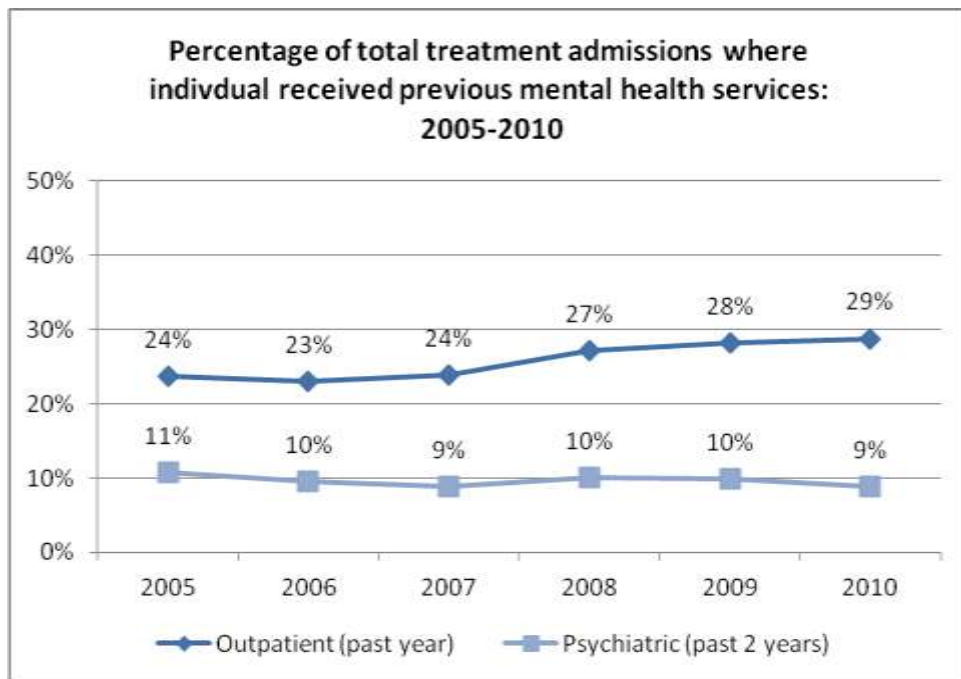
**Summary:** In 2010, just under half of all substance abuse treatment admissions also involved a mental health disorder. One quarter had received outpatient mental health services in the past year.



*Source: TDS 2005-2010*

- In 2010, 48 percent of all substance abuse treatment admissions also had a diagnosed mental health disorder. The proportion increased between 2007 and 2008, from 38 percent in to 49 percent, and has remained stable since that time. During that time period, Maine was engaged in an initiative to better diagnose and treat individuals with co-occurring substance abuse and mental health disorders, which likely accounts for the observed increases.





*Source: TDS 2005-2010*

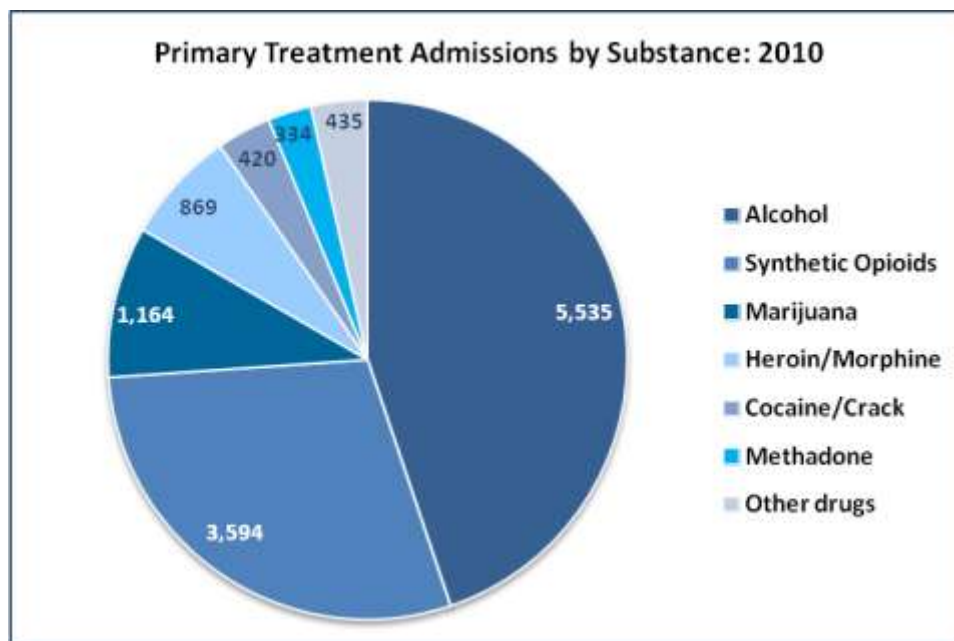
- In 2010, 29 percent of all substance abuse treatment admissions had received outpatient mental health services in the past year; this has increased from 24 percent in 2007.
- Nine percent of substance abuse treatment admissions in 2010 reported a psychiatric admission (meaning hospitalization due to mental health) within the past 2 years. This has remained relatively stable since 2005.

## Treatment Admissions for Substance Abuse

Substance abuse treatment admissions are an indicator of how many people *receive treatment* for a substance abuse problem. Treatment admission data should not be used as an indicator of the magnitude of the problems related to substance abuse. Rather, treatment should be seen as a major consequence stemming from substance use and one that requires many resources. Information regarding treatment admissions also provides useful information about the patterns of substance use among various populations.

Treatment related to substance abuse is measured in two forms: substance abuse treatment program admissions and general hospital admissions related to substance abuse problems. These admissions can be voluntary, but they can also be court-ordered. Hospital admissions (including both inpatient and outpatient services) with the primary diagnosis related to substance abuse problems are an indicator of how many people experiencing hospitalization are doing so with substance abuse problems. These substance-related problems can include diagnoses of intoxication, substance abuse or dependence, and poisonings. As previously stated, these data should not be used to measure the prevalence of substance abuse within Maine.

The overall number of Mainers seeking treatment has been declining since 2007, from 14,159 to 12,351 in 2010. Mainers continued to seek out treatment for abuse involving a wide array of substances besides alcohol; in 2010 there were 5,535 admissions for alcohol as the primary substance. This was followed by synthetic opioids (3,594) and marijuana (1,164). Of note, admissions for prescription narcotics have been increasing and recent data indicate that increasing heroin use continues to be a concern.



Source: TDS 2010

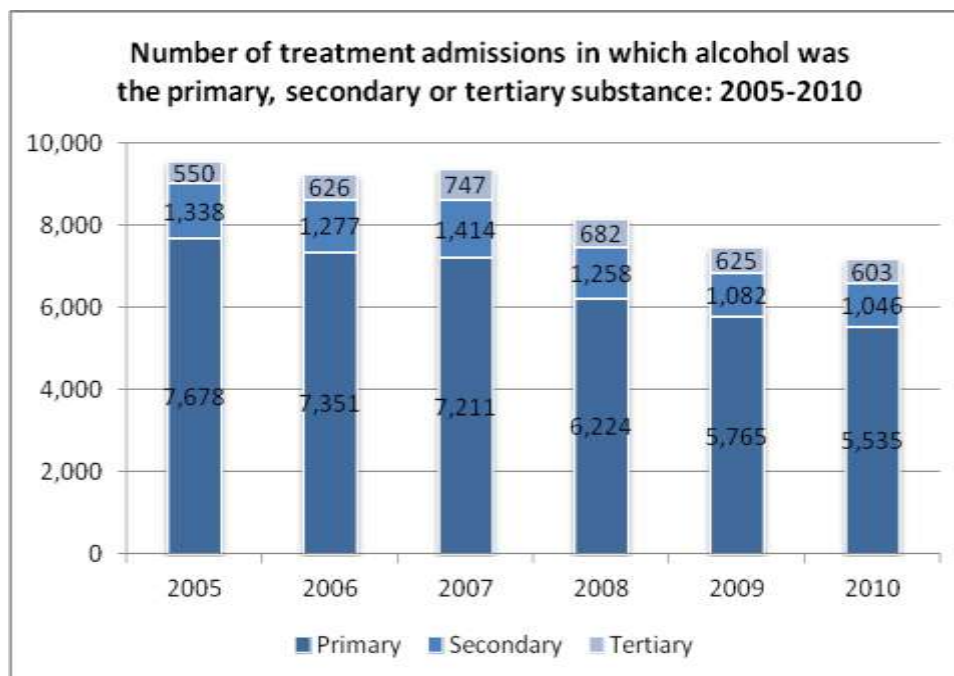
## Alcohol

**Indicator Description: TREATMENT ADMISSIONS RELATED TO ALCOHOL.** This measure reflects substance abuse treatment admissions in which alcohol was listed as the primary, secondary, or tertiary substance for which treatment was sought. The analysis excludes admissions for shelter/detoxification services.

**Why Indicator is Important:** The number of substance abuse treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admission data does not provide a good indication of substance use, abuse or dependence. It does, however, provide an indication of service usage and the impact of substance use on the behavioral healthcare system.

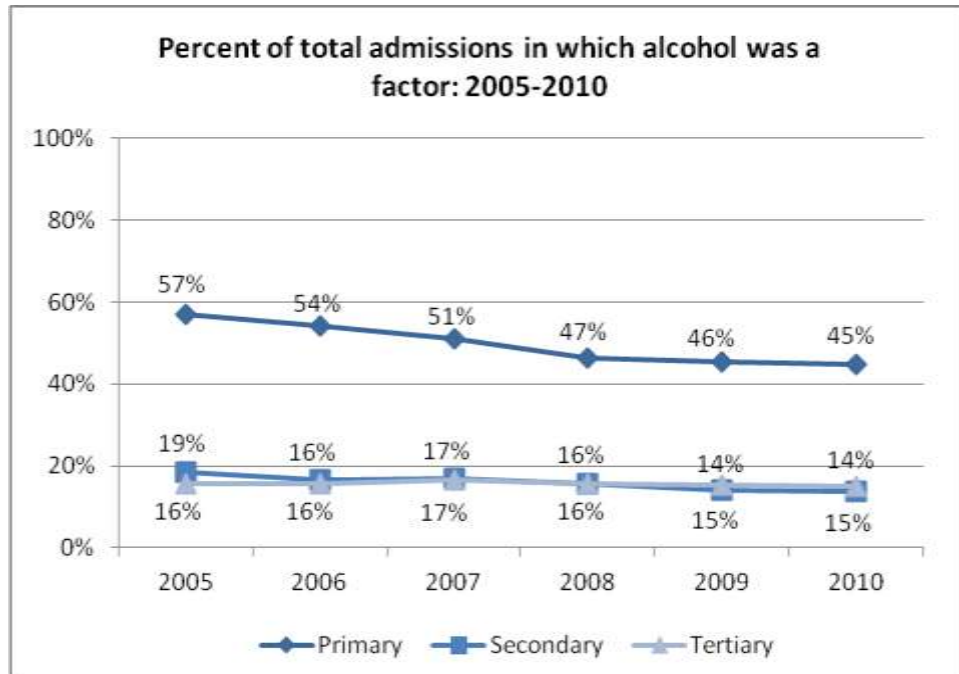
**Data Source(s):** TDS, 2005-2010

**Summary:** Alcohol continues to be the most frequent substance for which Mainers seek treatment, although the number of treatment admissions for alcohol has decreased since 2007.



Source: TDS 2005-2010

- Overall, the number of treatment admissions for alcohol has decreased since 2007 as a primary (5,535), secondary (1,046) or tertiary (603) substance for which treatment was sought.



Source: TDS 2005-2010

- Alcohol was the primary substance for which treatment was sought in just under half of all treatment admissions in 2010 (45%) although alcohol as the primary substance has declined since 2005 from 57 percent. As a proportion of secondary or tertiary substances, alcohol has remained relatively stable over that time period.

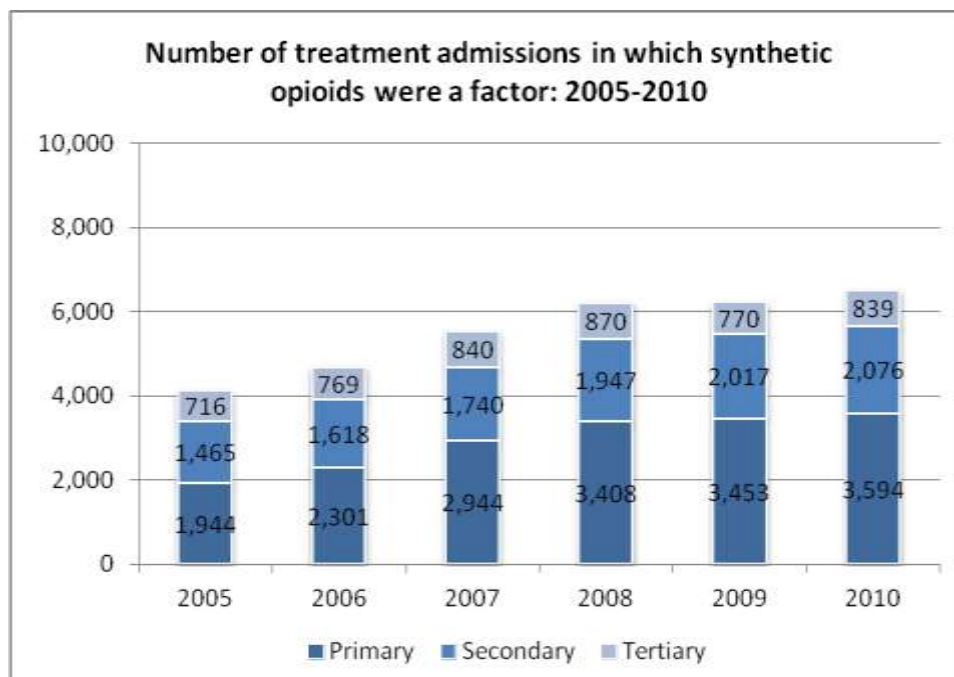
## Synthetic Opioids

**Indicator Description: TREATMENT ADMISSIONS RELATED TO SYNTHETIC OPIOIDS.** This measure reflects substance abuse treatment admissions in which synthetic opioids are listed as the primary, secondary, or tertiary substance for which treatment is sought. This excludes methadone, buprenorphine, heroin, morphine or opium. This analysis also excludes admissions for shelter/detoxification services.

**Why Indicator is Important:** The number of substance abuse treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admission data does not provide a good indication of substance use, abuse or dependence. It does, however, provide an indication of service usage and the impact of substance use on the behavioral healthcare system.

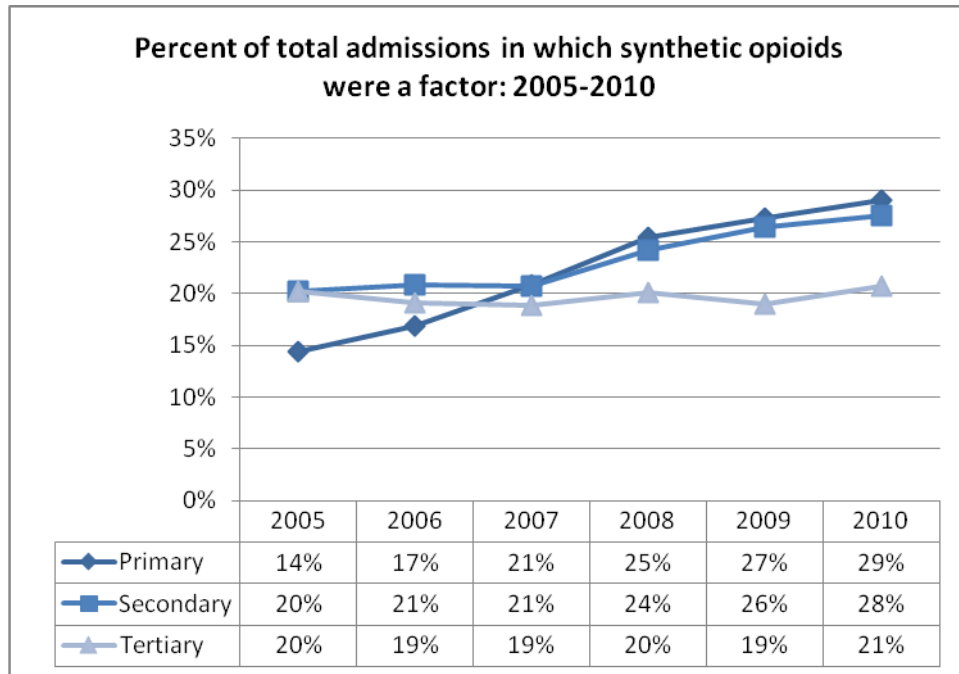
**Data Source(s):** TDS, 2005-2010

**Summary:** Synthetic opiates are the second most frequent substance for which treatment is sought in Maine. The number of treatment admissions related to synthetic opiates has been increasing since 2005.



Source: TDS 2005-2010

- In 2010, there were 3,594 primary treatment admissions involving synthetic opiates, continuing an upward trend since 2005. The numbers of admissions where synthetic opiates are listed as a secondary or tertiary substance have also increased since 2005.



Source: TDS 2005-2010

- In 2009, synthetic opiates were the primary substance for which treatment was sought in 29 percent of all treatment admissions; they were listed the secondary substance in 28 percent of admissions that listed a second substance. The proportion of treatment admissions related to synthetic opiates has been increasing since 2005.

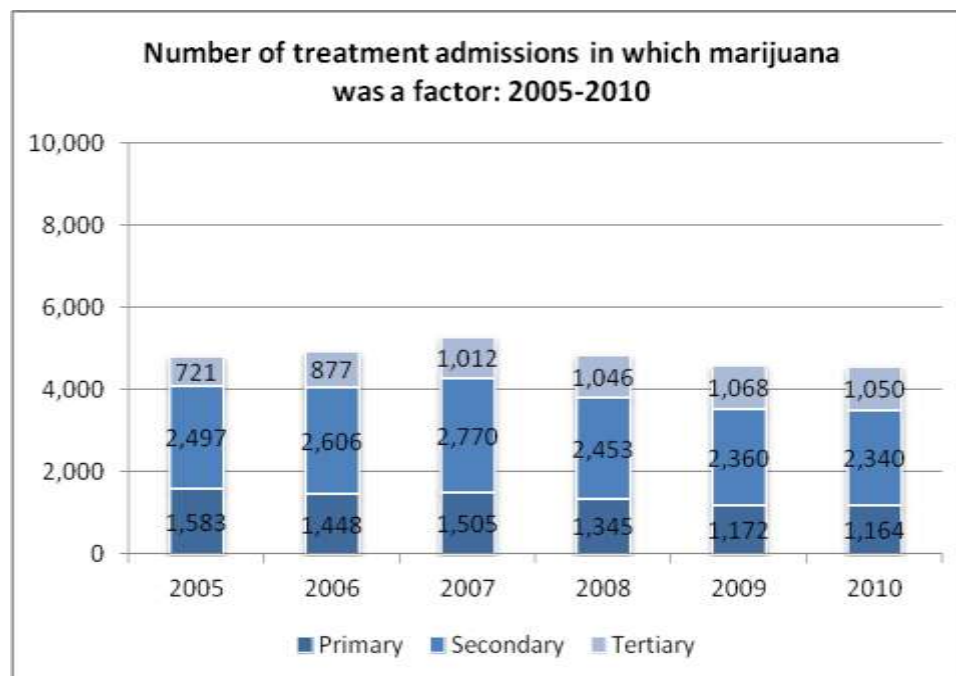
## Marijuana

**Indicator Description: TREATMENT ADMISSIONS RELATED TO MARIJUANA.** This measure reflects substance abuse treatment admissions in which marijuana is listed as the primary, secondary, or tertiary substance for which treatment is sought. This analysis excludes admissions for shelter/detoxification services.

**Why Indicator is Important:** The number of substance abuse treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admission data does not provide a good indication of substance use, abuse or dependence. It does, however, provide an indication of service usage and the impact of substance use on the behavioral healthcare system.

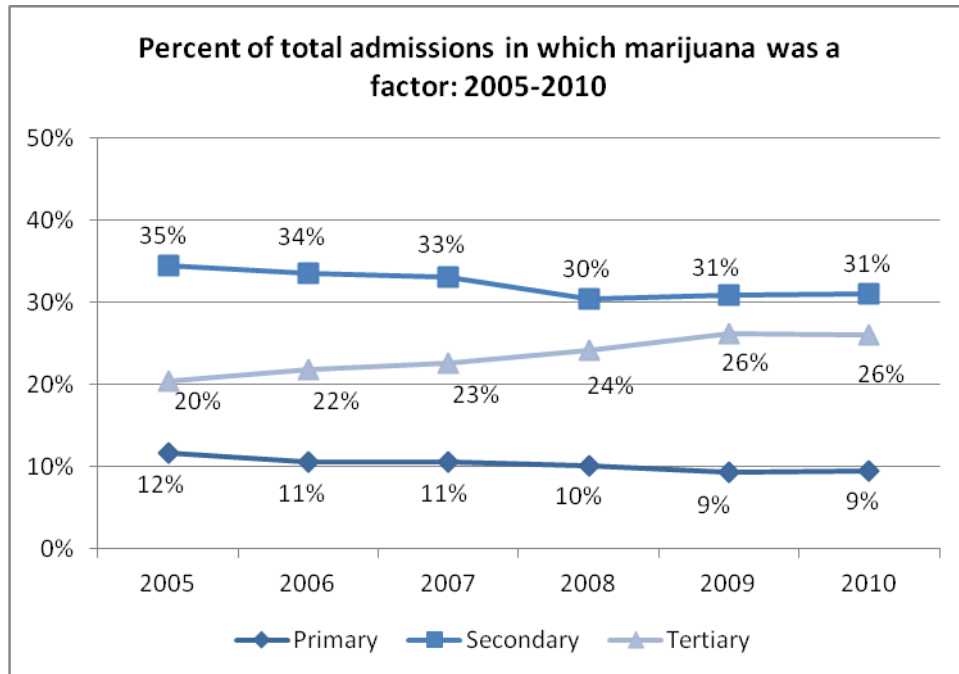
**Data Source(s):** TDS, 2005-2010

**Summary:** Marijuana tends to be listed as a secondary or tertiary substance for which treatment is sought.



Source: TDS 2005-2010

- In 2010, there were marijuana was listed a secondary substance in more treatment admission than as a primary substance (2,340 compared to 1,164). This pattern has remained relatively consistent since 2005. Overall, treatment admissions for marijuana have been decreasing since 2007.



Source: TDS 2005-2010

- In 2010, marijuana accounted for a small proportion of primary treatment admissions (9%), but accounted for around one-third (31%) of secondary admissions; this has changed little since 2005. Marijuana also accounted for one-quarter (26%) of tertiary admissions in 2010 an increase from 20% in 2005.



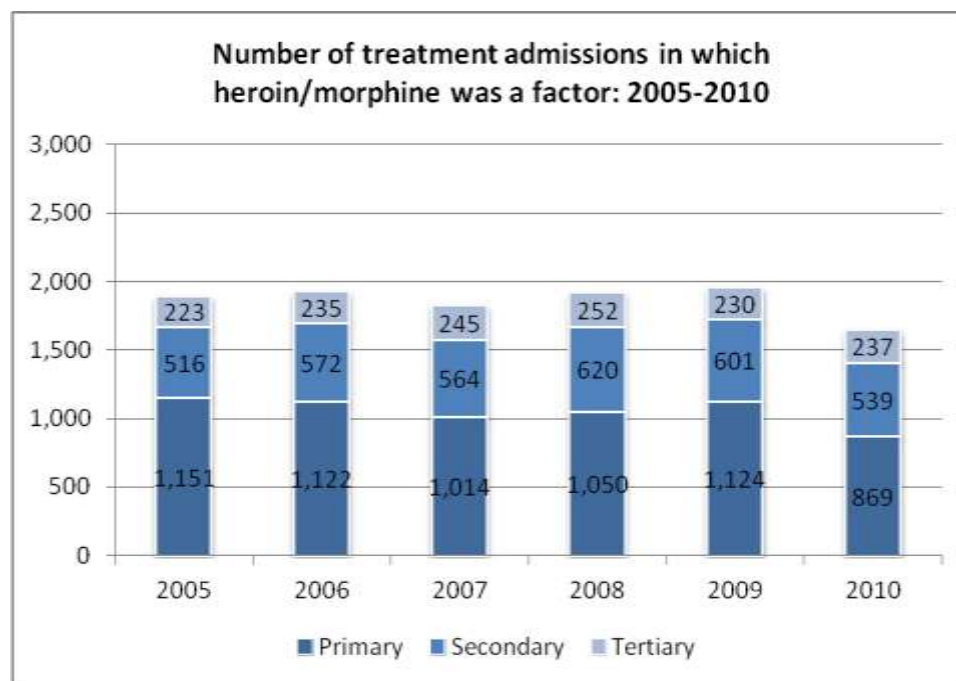
## Heroin/Morphine

**Indicator Description: TREATMENT ADMISSIONS RELATED TO HEROIN/MORPHINE.** This measure reflects substance abuse treatment admissions in which heroin or morphine is listed as the primary, secondary, or tertiary substance for which treatment is sought. This analysis excludes admissions for shelter/detoxification services.

**Why Indicator is Important:** The number of substance abuse treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admission data does not provide a good indication of substance use, abuse or dependence. It does, however, provide an indication of service usage and the impact of substance use on the behavioral healthcare system.

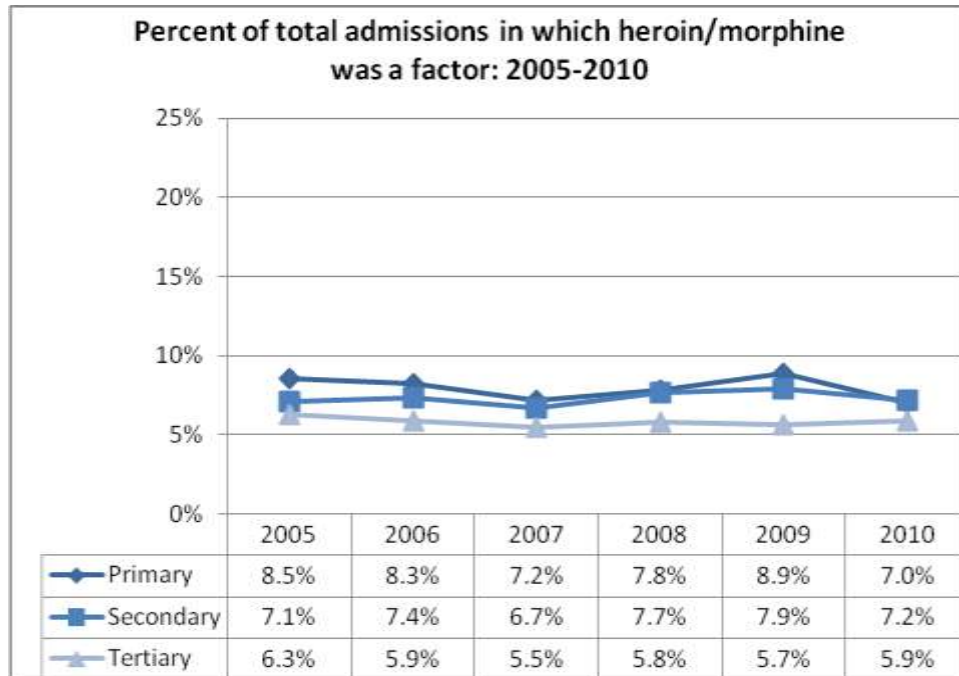
**Data Source(s):** TDS, 2005-2010

**Summary:** After increasing in 2008 and 2009, treatment admissions for heroin or morphine decreased in 2010.



Source: TDS 2005-2010

- In 2009, there were 869 admissions to treatment in which heroin was the primary substance for which treatment was sought; it was listed as a secondary substance in 539 cases. After increasing in 2008 and 2009, treatment admissions for heroin or morphine decreased in 2010.



Source: TDS 2005-2010

- Heroin was listed as the primary substance in 7 percent of all treatment admissions in 2010, representing a slightly decrease after rising in 2008 and 2009. It is unknown whether this trend this will continue.

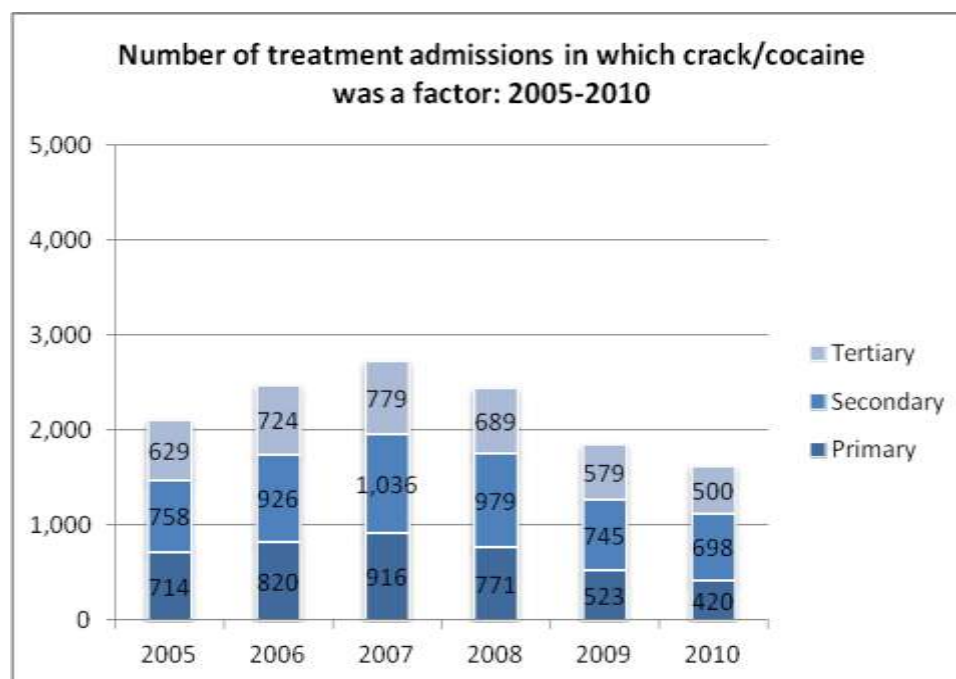
## Cocaine/Crack

**Indicator Description: TREATMENT ADMISSIONS RELATED TO CRACK/COCAINE.** This measure reflects substance abuse treatment admissions in which cocaine or crack is listed as the primary, secondary, or tertiary substance for which treatment is sought. This analysis excludes admissions for shelter/detoxification services.

**Why Indicator is Important:** The number of substance abuse treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admission data does not provide a good indication of substance use, abuse or dependence. It does, however, provide an indication of service usage and the impact of substance use on the behavioral healthcare system.

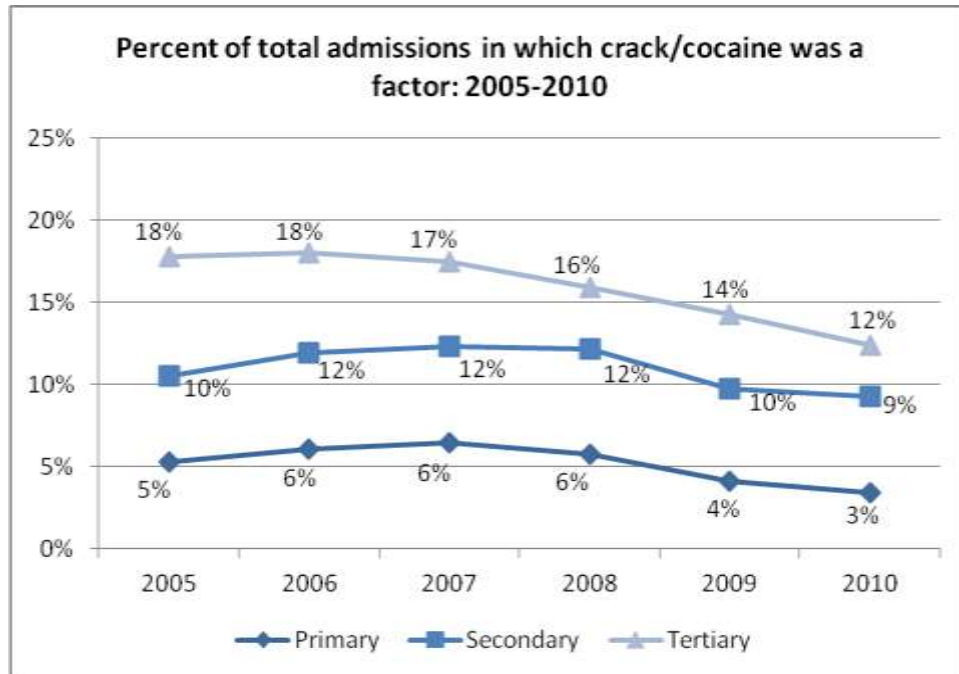
**Data Source(s):** TDS, 2005-2010

**Summary:** Treatment admissions for cocaine or crack have been decreasing since 2007.



*Source: TDS 2005-2010*

- In 2010, cocaine and crack were listed as the primary substance for which treatment was sought in 420 treatment admissions, and was more likely to be listed as a secondary (698) or tertiary (500) substance. Overall, treatment admissions for cocaine or crack as the primary, secondary, and tertiary reason for treatment have been decreasing since 2007.



Source: TDS 2005-2010

- As a proportion of primary treatment admissions, crack or cocaine has been decreasing recently to 3 percent in 2010 after remaining stable at 6 percent since 2006. Cocaine and crack accounted for 9 percent of secondary substances and 12 percent of tertiary substances for which treatment was sought in 2010; both have been declining since 2007.

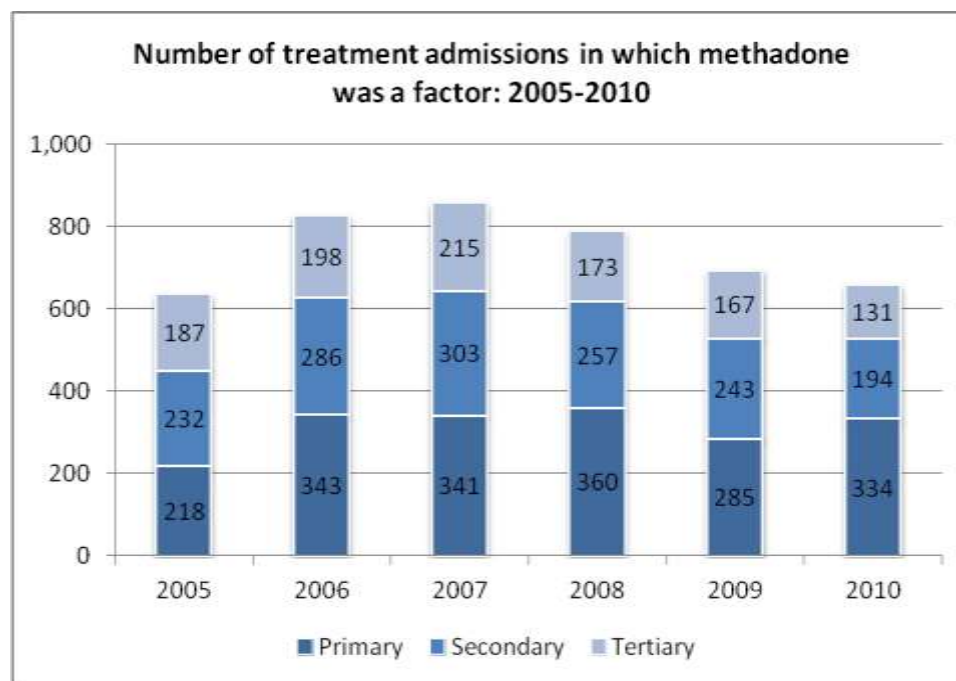
## Methadone

**Indicator Description: TREATMENT ADMISSIONS RELATED TO METHADONE.** This measure reflects substance abuse treatment admissions in which methadone is listed as the primary, secondary, or tertiary substance for which treatment is sought. This analysis excludes admissions for shelter/detoxification services.

**Why Indicator is Important:** The number of substance abuse treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admission data does not provide a good indication of substance use, abuse or dependence. It does, however, provide an indication of service usage and the impact of substance use on the behavioral healthcare system.

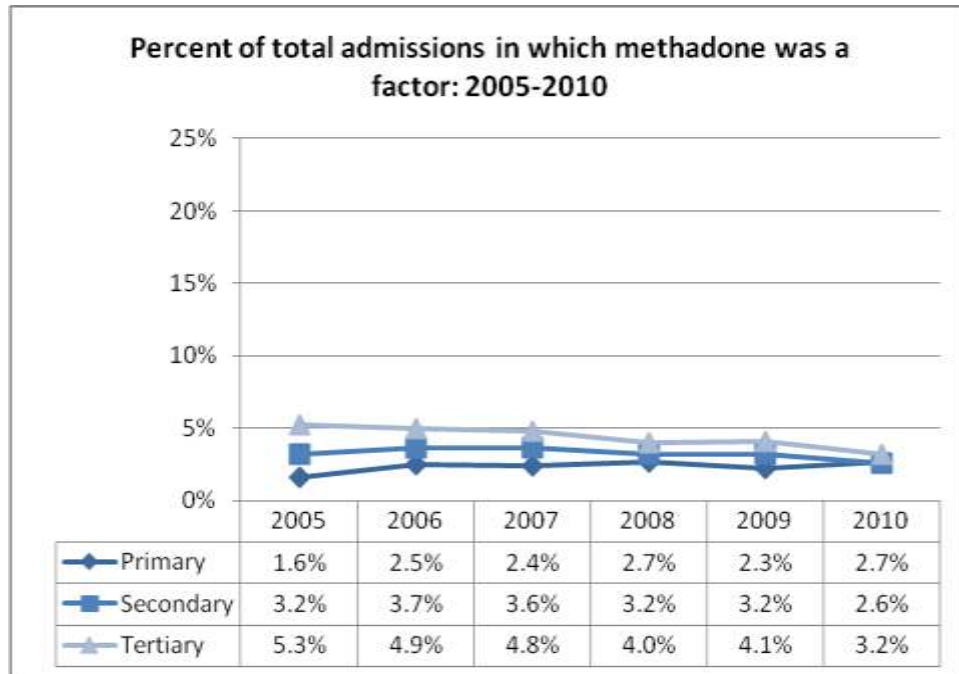
**Data Source(s):** TDS, 2005-2010

**Summary:** In 2010 there were 334 treatment admissions in which methadone was listed as the primary substance. Overall, the total number of treatment admissions involving methadone appears to be decreasing.



*Source: TDS 2005-2010*

- In 2010 there were 334 treatment admissions in which methadone was listed as the primary substance for which treatment was sought; it was listed as a secondary substance in 194 admissions and as a tertiary substance in 131. Overall, the total number of treatment admissions involving methadone appears to be decreasing.



Source: TDS 2005-2010

- While the proportion of admissions for methadone as the primary substance has remained steady since 2006, methadone accounted for a smaller proportion of substances for which secondary and tertiary treatment was sought.

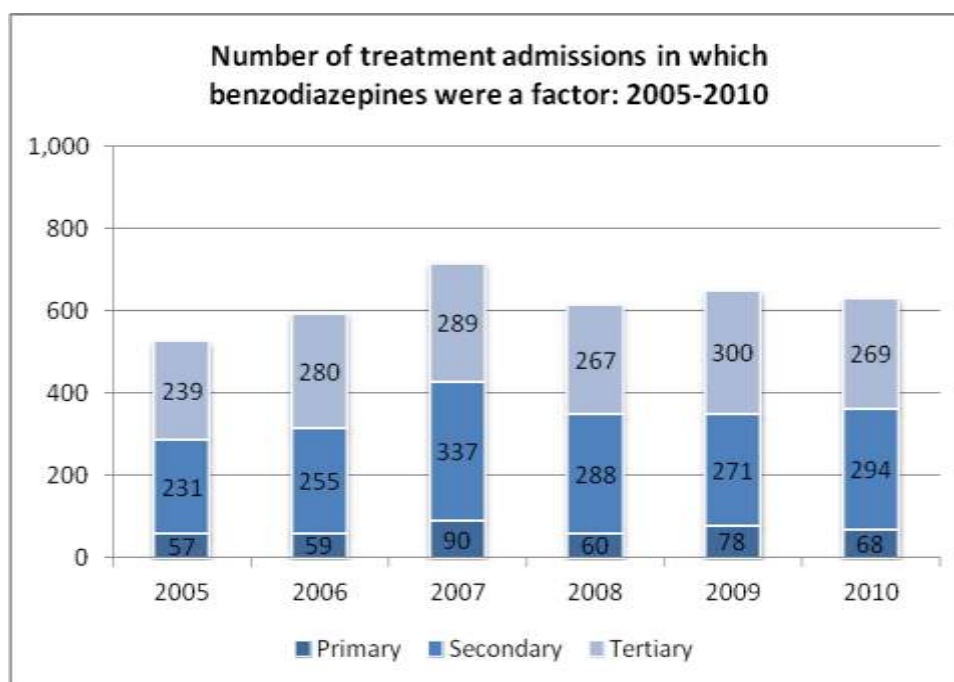
## Benzodiazepines

**Indicator Description: TREATMENT ADMISSIONS RELATED TO BENZODIAZEPINES.** This measure reflects substance abuse treatment admissions in which benzodiazepines are listed as the primary, secondary, or tertiary substance for which treatment is sought. Benzodiazepines are psychoactive drugs that are used to treat anxiety, insomnia, agitation, seizures, muscle spasms and alcohol withdrawal. This analysis excludes admissions for shelter/detoxification services.

**Why Indicator is Important:** The number of substance abuse treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admission data does not provide a good indication of substance use, abuse or dependence. It does, however, provide an indication of service usage and the impact of substance use on the behavioral healthcare system.

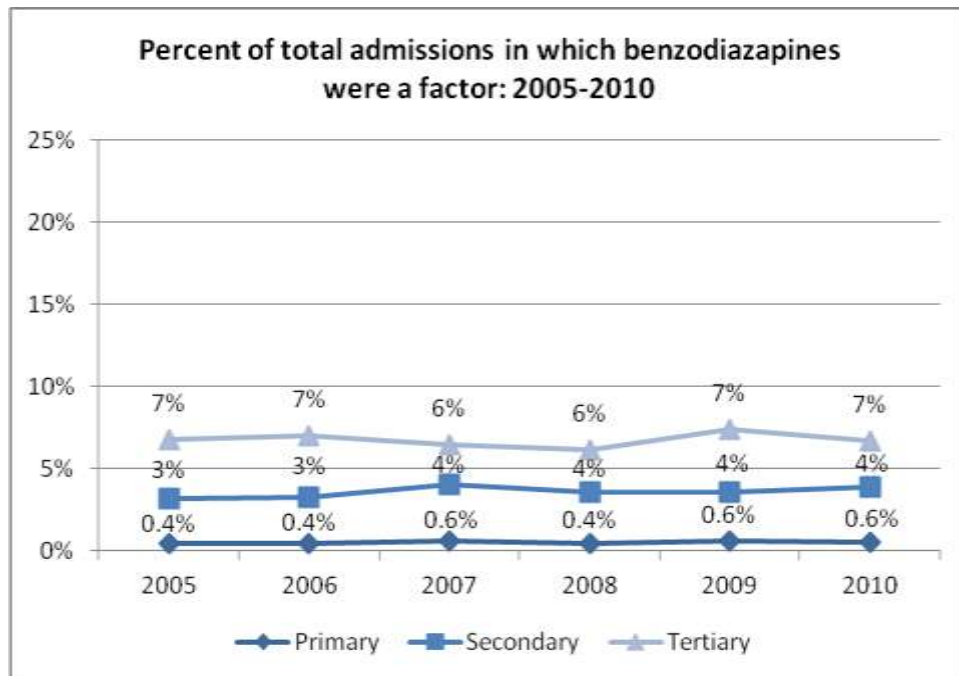
**Data Source(s):** TDS, 2005-2010

**Summary:** Total treatment admissions involving benzodiazepines increased through 2007 and then fell somewhat in 2008, remaining relatively stable since.



Source: TDS 2005-2010

- In 2010, benzodiazepines were listed as a secondary substance for which treatment was sought in 294 admissions and as a tertiary substance for 269 admissions. Overall, treatment admissions for benzodiazepines increased through 2007 and then fell somewhat in 2008, remaining relatively stable since.



Source: TDS 2005-2010

- As a proportion of total primary, secondary and tertiary admissions, benzodiazepines have remained relatively stable since 2005.



## Conclusion

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Alcohol is the substance most often used by Mainers across the lifespan and the substance for which most seek treatment. Great progress has been made towards reducing the rate of alcohol use among Maine's youth as evidenced by the most recent data trends that show an overall decline in both lifetime use and past 30-day use of alcohol. However, among high school students who had consumed alcohol, one-third reported starting before the age of 13.

Moreover, young adults are the most likely age group to binge drink and to drink heavily. This age group also has the highest rates of motor vehicle crashes and crash fatalities, especially young men. Finally, alcohol as the primary presenting problem still makes up the largest percent of admissions for substance abuse treatment in Maine.

Prescription drugs represent a serious public health concern for Maine. While pinpointing the extent of prescription drug use is difficult because of a wide range of definitions among various data sources and lack of comparable data, 11 percent of high school students have used prescription drugs for a reason other than their intended purpose in the past 30 days. Among adults, 12 percent of young adults ages 18-25 had used pain relievers for non-medical purposes within the past year. Finally, prescription drug misuse is having a large impact on treatment and hospitalizations in Maine as the number of primary treatment program admissions attributed to prescription narcotics has grown significantly since 2005.

In terms of illicit drugs, the most commonly used illegal drug in Maine is marijuana. Among the 18-25 year old population, 23 percent of young adults used marijuana in the past month, and only 15 percent think smoking marijuana once per month poses great risks. Moreover, recent data indicate that 21 percent of high school students in Maine have used marijuana in the past 30 days although this has been declining. However, many students continue to think that using marijuana regularly does not pose any risks or harm and just under one-third of current users started using marijuana before the age of 13. Although there are few consequences directly related to marijuana, early use has been associated with later adolescent problems that limit skills for employment, increase the risk of contracting human immunodeficiency virus and using illicit drugs.

The relationship between substance use and mental health has been well documented. About one-quarter of adults in Maine report having ever been diagnosed with depression. Young adults are more likely to report experiencing serious psychological distress in the past year than older adults (one in five). And about one in ten high school students considered or planned for suicide in 2009. Just under half of all substance abuse treatment admissions in 2010 also involved a mental health disorder and one quarter had received outpatient mental health services in the past year. These mental health indicators should continue to be monitored in terms of the relationship they have with substance use and abuse.